CARMICHAEL

PRIZE ESSAY

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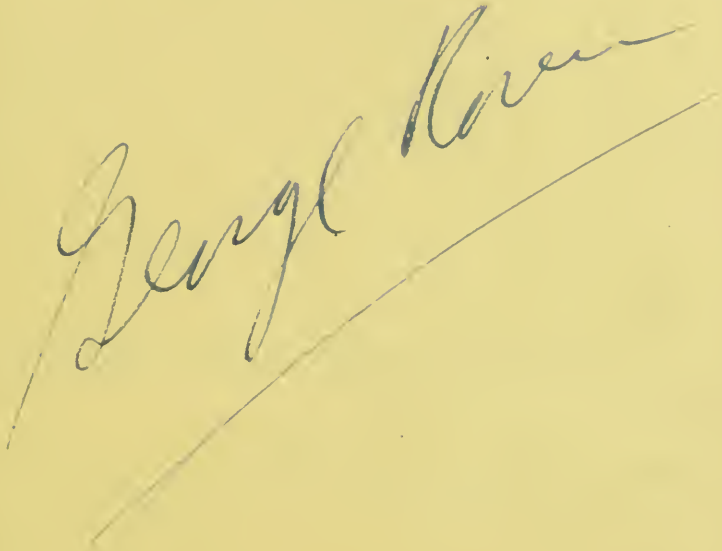

Dr Herbert Davies
With the Author's kind Regards

# CARMICHAEL PRIZE ESSAY,

1879.

written under great pressure.

# THE MEDICAL PROFESSION:

BEING

## THE ESSAY

TO WHICH WAS AWARDED

## THE FIRST CARMICHAEL PRIZE OF £200

BY THE

## Council of the Royal College of Surgeons, Ireland,

## 1879.

BY

WALTER RIVINGTON,

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*"Nil actum reputans si quid superesset agendum."*

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The Council of the Royal College of Surgeons desire it to be understood that they are not in any way responsible for the opinions expressed in the Carmichael Essays.

# PREFACE.

In accordance with the conditions of competition prescribed by Mr. Carmichael, the author has aimed at giving, first of all, a plain and unvarnished account of the state of the Medical Profession, in its various departments of Physic, Surgery, and Pharmacy, in Great Britain and Ireland; the state of the Hospitals and Schools of Medicine, Surgery, and Pharmacy; and the state and mode of examination, or of testing the qualifications of candidates, of the different Licensing Colleges or Corporations in Medicine, Surgery, and Pharmacy. He has endeavoured—and at a very considerable expenditure of both time and trouble—to state the actual facts, so far as they could be ascertained from the sources of information within his reach, and so to state them as to make them thoroughly intelligible to lay readers. In setting forth the present state of the Corporations, General Medical Council, and Public Services—Civil and Military—he has been obliged to enter into retrospect, for without this a just estimate of the present condition of these bodies could not be formed; and he has been led to take this course partly also by the consideration that there does not exist at the present time any English work (so far as he knows) which supplies the information of which a well-

informed medical man ought to be in possession. Since Dr. Mapother's Essay was published, about ten years ago, there has been a gap which required to be bridged. The *Medical Directory* supplies very valuable information (of which free use has been made), but not quite in the form or to the extent which is needed.

Under each head the author has entered into some criticisms and made some suggestions, but he has found it more convenient to gather together the bulk of his proposals for improvement into one chapter at the end of the Essay. Had time permitted, he would probably have made the work more complete by touching on some subjects which he has been obliged to pass by. The field covered by the titles of the different parts of the Essay is so vast that it has been almost impossible to include all that might be included. Some collateral subjects, such as the state of the law relating to Coroners and Lunacy, have been omitted—the author confining himself as much as possible to strictly professional interests. For lack of time he has not touched on medical evidence in courts of law, the payment of medical witnesses, and the social position of the members of the Profession. Other subjects have been passed over more lightly than he wished—as, for example, the higher qualifications, medical fees and titles, and the state of the hospitals; but this last topic alone might furnish material for a long essay. The chief attention has been given to those subjects which are prominently engaging public notice—the state of the Medical Corporations; the General Medical Council; the relation of

the Profession to both; amendment of the Medical Act, 1858; the Medical Departments of the Public Services; Sanitary Administration, and Medical Education. Even here the writer is far from satisfied with the result of his labours, being impressed with the sentiment involved in the words which he has selected for a motto—

NIL ACTUM REPUTANS SI QUID SUPERESSET AGENDUM.

## ERRATA.

Page 5, line 24, for *apostematious* read *apostemations.*

Page 23, lines 24 and 25, for *Apothecaries' Act (55 Geo. II., c. 194)* read *Apothecaries' Act (55 Geo. III., c. 194).*

Page 24, line 34, for *1875* read *1874.*

Page 32, line 19, for *1862* read *1863.*

Page 36, line 14, for *1453* read *1455.*

Page 36, line 15, for *1572* read *1512.*

Page 49, line 37, for *above those of the Colleges* read *above the licences of the Colleges.*

Page 59, line 32, for *vacancy* read *vacancies.*

Page 149, line 12, for *the electors* read *the majority of the electors.*

Page 152, line 13, for *was* read *were.*

Page 152, line 39, for *5th* read *6th.*

Page 153, line 7, for *20th* read *6th.*

Page 178, line 2, for *1 to 25 or nearly 26* read *about 1 to 25.*

Page 181, line 38, for *Mr. Booth* read *Mr. Sclater-Booth.*

Page 183, line 29, for *40 & 41 Vict.* read *41 & 42 Vict.*

Page 206, line 16, for *Thompson* read *Thomson.*

Page 282, line 38, for *may* read *must.*

Page 312, line 16, omit words *and Hare.* Burke was hanged and dissected, and his skeleton was placed in the Museum of the University of Edinburgh. Hare, the blacker scoundrel, escaped the hangman—he and his wife turned king's evidence, or approvers.

Page 312, lines 26 and 27, "about £80 to £140." This statement bears only on the English schools. Medical education is considerably cheaper in Scotland.

Page 368, line 38, "The General Medical Council has recommended separate examiners in each subject of study." This statement does not appear to be strictly correct. The Council has not issued a recommendation of the kind *totidem verbis;* but the spirit of the recommendations of the Council on the conduct of examinations (see page 117) lends support to the measure, and the recommendations themselves seem to have been inspired by the model presented by the University of London (see page 362).

# BOOKS AND AUTHORS REFERRED TO OR QUOTED.

The following have been the chief Works from which the Author has derived information, and to which he is indebted:—

Calendars and By-laws of the various Licensing Corporations.
Reports of the proceedings of the General Medical Council published in the Journals.
Articles, Letters, and Reports in the *Lancet*, *British Medical Journal*, *Medical Times and Gazette*, *Medical Press and Circular*, since 1858.
Prospectuses of the Schools of Medicine.
Students' Numbers of the Journals.
Census Returns.
Reports of the Local Government Boards of England and Ireland and Board of Supervision of Scotland.
The Medical Directory.
The Medical Act, with Notes by Dr. Glover and Mr. Davidson.
The Medical Institutions of Great Britain, by Dr. Chapman.
Mr. Ashe's Carmichael Prize Essay.
A Winter in Paris, by Dr. Simms.
Dr. Ray Lankester's Introductory Lecture at University College Hospital, 1878.
The various Acts of Parliament referred to.
The Calendar of the Pharmaceutical Society.
Addresses by Dr. Rumsey, Dr. Rogers, Mr. Brudenell Carter, Mr. Michael, Dr. Lyon Playfair, Mr. Ernest Hart, Dr. Allen Thomson, &c.
Reports of Committees of British Medical Association.
Reports of Committees on Hospitals, Dispensaries, Special Hospitals, &c., and Discussions and Letters and Articles in Journals and Periodicals.

In touching on sanitary reform the author has preferred quoting the views of men like Rumsey and Michael, to whom the subject has been a life-study, to employing his own language whilst robbing them of their ideas and suggestions. In one or two places in the Essay he has made use of expressions of his own which have appeared in anonymous articles or papers written by himself. This he mentions to avoid the charge of plagiarism. In compiling statistical information, &c., he has made use of "Churchill's Medical Directory." If he has not always given chapter and verse it has been to avoid encumbering his pages with references.

## NOTE.

Since this Essay was written one or two changes of importance have been made. At its recent sitting in July the General Medical Council resolved to remove Natural Philosophy from the list of optional subjects for the Preliminary Examination and make it one of the subjects without a knowledge of which no Candidate should be allowed to obtain a qualification.

The Irish University Act passed in the late Session of Parliament will modify the constitution of the Queen's University and the position of the Queen's Colleges.

A fifth English University—the Victoria University—has been created on the foundation of Owen's College, Manchester, but the power of granting medical degrees is withheld pending the settlement of the questions connected with the proposed amendment of the Medical Act of 1858. Whatever may be in store for the medical profession it is to be hoped that it will not be afflicted with a twentieth Examining and Licensing Corporation.

27*th August*, 1879.

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# ESSAY.

THE number of Medical Practitioners in the published *Medical Register* for 1878 was 22,841. Churchill's *Medical Directory* for the same year contains a much larger number. According to our reckoning, which may be regarded as approximatively correct, the members of the profession were thus distributed:—

| | |
|---|---|
| Practising within the London Postal Districts - | 3,749 |
| ,, in the Provinces - - - | 11,091 |
| ,, in Scotland - - - - | 1,968 |
| ,, in Ireland - - - - | 2,421 |
| Resident abroad - - - - | 2,082 |
| Medical Officers of the Army, Navy, Indian Medical Service, and Mercantile Marine - | 2,479 |
| Total - - | 23,790 |

The difference between the numbers of practitioners whose names appear in the *Medical Register* and *Medical Directory* respectively, is an excess of about 950 in favour of the *Medical Directory*. This excess must include some deceased practitioners whose names have not been removed from the *Directory*, some no longer practising, and those who remain unregistered.

The following table gives the number of physicians and surgeons returned at the three censuses of 1851, 1861, and 1871, the population, and the proportion of physicians and surgeons to the population in the three divisions of the kingdom:—

*Physicians and Surgeons.*

| | 1851. | 1861. | 1871. |
|---|---|---|---|
| United Kingdom - | 19,767 | 18,642 | 18,884 |
| England and Wales - | 15,241 | 14,415 | 14,684 |
| Scotland - - | 2,087 | 1,870 | 1,780 |
| Ireland - - | 2,439 | 2,357 | 2,420 |

*Population.*

| | 1851. | 1861. | 1871. |
|---|---|---|---|
| United Kingdom - | 27,393,337 | 28,977,133 | 31,545,742 |
| England and Wales - | 17,982,849 | 20,119,314 | 22,782,812 |
| Scotland - - | 2,896,015 | 3,069,404 | 3,367,922 |
| Ireland - - | 6,514,413 | 5,788,415 | 5,395,007 |

*Proportion of Physicians and Surgeons to* 10,000.

| | 1851. | 1861. | 1871. |
|---|---|---|---|
| United Kingdom - | 7·2 | 6·4 | 6·0 |
| England and Wales - | 8·5 | 7·2 | 6·4 |
| Scotland - - | 7·2 | 6·1 | 5·2 |
| Ireland - - | 3·7 | 4·1 | 4 5 |

The average number of persons to one medical man was as follows:—

| | 1851. | 1861. | 1871. |
|---|---|---|---|
| United Kingdom - | 1,386 | 1,534 | 1,672 |
| England and Wales - | 1,180 | 1,396 | 1,552 |
| Ireland - - | 2,670 | 2,413 | 2,229 |
| Scotland - - | 1,387 | 1,641 | 1,913 |

The comparison of 1851 with 1871 is vitiated by the circumstance that in 1851 the Medical Act was not in existence, and any one called himself physician or surgeon. In 1861 there was an "ugly rush for qualifications," and there were many foreign graduates. The increase of "physicians" and "surgeons" in the United Kingdom during the 10 years from 1861 to 1871 is, on the face of the figures, only 242—an increase of 269 in England and Wales, and of 63 in Ireland—and a decrease of 90 in Scotland. Dr. Farr considers that the medical attendance for the people was extremely defective in 1851, and more defective in 1876, and that there is an imminent danger that it may become quite inaccessible to vast numbers of people. He calls attention to the increase of chemists and druggists *pari passu* with the decrease in the supply of medical men, and intimates that they do not live by mere retail or the sale of drugs. In 1841 the chemists and druggists were 7,816; and in 1871, 15,540—an increase of 7,724 in 30 years, or 257 annually. The proportion of chemists and druggists to 10,000 of the population was 4·9 in 1841, 6·0 in 1851, 6·3 in 1861, and 6·8 in 1871. The number of assistants and medical students aged

20 and upwards was, in 1851, 2,228; in 1861, 2,276; and in 1871, 3,116.

It is difficult to arrive at any trustworthy determination of the proper proportion of medical men to the population. In the army there is a surgeon to every 204 men, or 49 to 10,000. The civil population have not one-sixth part of this number. It is impossible to accept the army as affording any fair basis for even an approximate conclusion. The analogy of the army is fallacious, because the supply in the army is based on a calculation of extraordinary contingencies, which are not taken into account in civil life. Nor can we lay down any hard-and-fast line for the United Kingdom which would be applicable for each of its divisions, nor a hard-and-fast line for any of the divisions which would be applicable to all the counties, or for the counties which would be applicable to the towns and villages and country districts, or for any large town which would be applicable to more than a few of the other large towns. The subject is of a decidedly complex character. In order even to arrive at the actual facts of the case as it stands at present, more information is required. We must add to the number of medical men the number of practising unqualified assistants and counter-prescribing chemists, and these two classes are an unknown quantity, whose absence from the calculation would vitiate the conclusion which we wish to draw. We want to ascertain, at least approximatively, what proportion of medical men is an adequate proportion for supplying the wants of the population under ordinary circumstances, and it is doubtful whether we are at present in a position to settle the question. All that can be done with the data before us consists in calculating the actual proportion of qualified medical men to the population in each division of the kingdom. It is sufficient here to state that the alterations in the proportions existing in 1871 have been comparatively unimportant, and for all practical purposes the figures contained in the table above given may be still used. If we turn to the various towns, and villages, and districts in the different divisions of the kingdom, we find the greatest anomalies prevailing in the distribution of medical men, and in their proportion to the population—the differences ranging, in examples taken more or less at random, from 1 medical man to 210 persons at Buxton, Derbyshire, to 1 to 6,295 at Aberdare. The conclusion at which we have arrived is that no safe general statement can be made until the circumstances of each individual

district, town, and village have been investigated, and until it has been ascertained, by inspection and inquiry, whether the medical attendance in each and all is sufficient or insufficient, and, if insufficient, what are the causes of the insufficiency. It appears probable that the following are some of the conditions influencing the proportions:—

1. Fashionable sea-side towns and inland watering places having a migratory constituency or a considerable number from the upper classes of society as ordinary residents or as invalid visitors will have a large proportion of medical men to the population. Such places are Brighton, Bath, Buxton, Leamington, Harrogate, Bournemouth, Scarborough, &c.

2. Towns with a large manufacturing interest and numerous factories, employing hundreds and thousands of operatives, and mining districts, will have a small proportion of medical men to the population. Such places are Halifax, Sheffield, Manchester, Kidderminster, Hindley, Aberdare, &c.

3. Decaying towns, out-of-the-way places, country districts with a poor and scattered population, difficult of access, will probably have a small proportion of medical men. Parts of Cornwall and Cumberland, Scotland and Ireland, come under this head. Alderney, with 2,738 inhabitants, has only one medical man, and Sark, with nearly 700 inhabitants, has no qualified medical practitioner.

4. Villages in more civilised parts of the country, districts where there are many small farmers and where there is a chance of getting practice out of neighbouring villages and small towns, and where poor law and club appointments are to be obtained, may have a large proportion of medical men to the population.

Exceptions may, of course, be found to all general statements, and the averages are open to fallacy from various causes which do not appear upon the face of the figures. Thus the number of unqualified assistants employed, the number of empirics and counter-prescribing chemists, the number of practitioners almost past work or not yet employed by the public, consulting practitioners and specialists, teachers in medical schools not practising, the proximity of other places, and the size of adjacent poor law districts, must all be taken into the account.

The divisions of medical practice which have been recognised for many years are three in number—*physic* or *medicine*, *surgery*, and *pharmacy*. Midwifery was not originally a branch of the medical

art. Child-bearing was regarded as a natural function which anyone might superintend.

*Physic* or *Medicine* is the province of the physician, and is concerned with such diseases as are amenable to medicines and general management. The definition of physic, given by Lord Chief Justice Holt and the Court of Queen's Bench in 1703 in the case of the College of Physicians *v.* Rose, has become classical. Physic was defined as consisting of three Acts—1. Judging of the disease and its nature from the constitution of the patient and many other circumstances. 2. Judging of the fittest and properest remedy for the disease. 3. Directing or ordering the application of the remedy to the disease.

*Surgery* or the art of the surgeon or chirurgeon has been defined in Acts of Parliaments and Charters. The meaning of the term and common custom agree in assigning to it the management of all complaints which have to be treated by manual interference or operative measures. By 32 Henry VIII., c. 42, surgeons are the proper persons to treat infectious diseases such as the pestilence, syphilis, and other such contagious infirmities, "and to practise the letting of blood and the drawing of teeth." By 34 & 35 Henry VIII., c. 8, their supervision extends to "customable diseases, as women's breasts being sore, a pin and web in the eye, uncomes of hands, burnings, scaldings, sore mouths, the stone, strangury, sanceline and morphew, and such other like diseases, apostematious outward swellings and agues." "Wounds, ulcers, fractures, dislocations, tumours, and other external infirmities" have been assigned to the surgeons by the Charter granted by Charles I. to the College of Surgeons of England. The functions of physicians and surgeons dovetail into each other and cannot be rigidly separated, certain ailments occupying an intermediate position and being treated indifferently by either—skin diseases, for instance. The right of ordering medicines for patients under their care was acquired by the surgeons after a severe contest with the physicians.

*Pharmacy* is the art of preparing and compounding drugs. It was the appropriate business of the apothecary, whose duty was declared by Lord Chief Justice Holt to be to make and compound or prepare the prescriptions of the doctor, pursuant to his directions. The Apothecaries Act (1815) defines his duty to be "to prepare with exactness and to dispense such medicines as may be directed for the sick by any physician lawfully licensed to practise

physic, and to apply or administer the same." At the date of the Apothecaries' Act apothecaries were distinguished from chemists and druggists by the fact of compounding medicines. Chemists and druggists simply sold drugs; they did not compound the prescriptions of physicians. In Dublin, till quite recently, the chemists and druggists could not compound. There is a remarkable tendency in classes of individuals to encroach upon the provinces of other classes higher in the scale. Engaged at first in compounding the prescriptions of physicians and carrying out their directions, the English apothecary gradually attended cases and prescribed for them on his own account, until he acquired a prescriptive right, from which the physicians were powerless to dislodge him, and which was legalised by the Act of 1815. Similarly chemists and druggists have encroached on the province of the apothecary, and, having acquired the right of making up prescriptions, have been exercising the functions of general practitioners by treating diseases for their own benefit. In the Medical Act of 1858 pharmacy is not mentioned as a distinct branch of medical practice. Medicine and surgery are the only divisions recognised therein. As the legal right to practise any of the branches of the medical profession in the United Kingdom is derived from the possession of a diploma or qualification, conferred after examination by one of the Licensing Corporations in England, Scotland, and Ireland, it will be convenient to give a brief account of these Corporations before describing the classes of legally qualified practitioners.

There are no less than nineteen Corporations in the United Kingdom authorised by Royal Charters or Acts of Parliament to grant licences to practise the medical profession. Some of the Corporations are entitled to grant diplomas or qualifications only in medicine; some are entitled to grant diplomas or qualifications only in surgery; the others can confer diplomas, or licences, or degrees which give their holders the right to practise both branches of the healing art.

Of the nineteen Corporations England claims seven—viz., the Royal College of Surgeons of England, the Royal College of Physicians of London, the Apothecaries' Hall, and the Universities of Oxford, Cambridge, London, and Durham. Scotland boasts of an equal number—viz, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Universities of

Edinburgh, St. Andrew's, Aberdeen, and Glasgow. Five Corporations remain for Ireland—viz., the Royal College of Surgeons in Ireland, the King and Queen's College of Physicians in Ireland, and the Apothecaries' Hall of Ireland, the University of Dublin, and the Queen's University. Thus there are four Colleges of Surgeons, including the Faculty of Physicians and Surgeons of Glasgow, three Colleges of Physicians, two Apothecaries' Halls, and ten Universities engaged in supplying the public with educated and competent medical advisers.

### THE COLLEGES OF SURGEONS

have the power of conferring by examination surgical diplomas, the holders of which are called "Members" of the College in the case of the English College, and "Licentiates" in the case of the Colleges of Edinburgh, Glasgow, and Dublin. In order to obtain admission as "Members" or "Licentiates" of the Colleges of Surgeons candidates must be twenty-one years of age, must pay the fees, and pass the prescribed examinations. After admission the "Members" and "Licentiates" enjoy certain privileges in addition to the right of practising surgery, such as free access to the museum and library of the College with which they are connected; but politically they are pariahs, for they have no share whatever in the government of the Corporation. The governing power at all the Colleges of Surgeons is in the hands of another body called "Fellows," who are admitted either by examination or by election. A short space must be allotted to each College.

### THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

is the most important of the Medical Institutions of Great Britain and Ireland. Its origin may be dated from the incorporation of the "Freemen of the Mystery of Barbers of the City of London using the Mystery or Faculty of Surgery" by letters patent, granted in the first year of the reign of King Edward IV. The Incorporated Company of Barbers was united to the Unincorporated Company of Surgeons by an Act of Parliament, passed in the 32nd year of King Henry VIII. The union of the Barbers and Surgeons was dissolved in 1745. The surgeons were incorporated as a separate body by Act of Parliament, 18 Geo. II. In 1800 the Company was dissolved and reincorporated by charter. The constitution thus conferred proved too close and exclusive. Ultimately,

on the 14th of September, 1843, a new charter was obtained, by which the present constitution was established, additions and corrections being made in a subsequent charter, granted on the 18th March, 1852. The charter permits the annual admission of two members of twenty years' standing to the fellowship without examination, and confers power upon the College to admit to the fellowship, also without examination, the fellows, members, and licentiates of the Scotch and Irish Colleges of Surgeons. With these exceptions, no person was to be allowed to become a fellow until he had attained the age of twenty-five years, had complied with the rules of the College, and had passed a special examination. It was ordained that admission to the fellowship should be by diploma, and that the fee over and above the stamp duty should not exceed thirty guineas. The executive is entrusted to a Council of twenty-four, consisting of a president, two vice-presidents, and twenty-one councillors. Three councillors, as a rule, retire annually, the vacancies being filled by election on the first Thursday in July in each year. The election takes place by ballot, the electors being all the fellows who may be able to attend the meeting. The Council transacts all the business of the College, makes, abrogates, and alters by-laws, and appoints all the officers of the College. Four committees, appointed by the Council, are annually at work—a museum committee, a library committee, a committee for general purposes, and a committee of auditors. The income of the College averages at the present time about £15,000, four-fifths being derived from the fees of candidates for the diplomas of the College. Rents and dividends yield about £2,500 annually. The expenditure is generally less than the income, leaving a balance of a few hundred pounds. Expenses of examinations form less than half of the expenditure. Maintenance of the Hunterian Museum costs from £2,000 to £3,000.

The College possesses an immense constituency of medical practitioners who have taken its diplomas. The diplomas and qualifications conferred are—the Diploma of Membership, the Diploma of Fellowship, the Qualification or Licence in Midwifery, and the Licence in Dental Surgery. The Qualification in Midwifery was instituted by the charter of 1852, and the Licence in Dental Surgery by a special charter granted on the 8th September, 1859. According to our computation of the numbers of the various orders contained in the calendar of 1877, there were 1,254 fellows

(511 by examination), 15,809 members, 988 licentiates in midwifery, and 409 licentiates in dental surgery. Members of the College differ from licentiates of other Colleges in being an integral portion of the body politic and corporate; hence the name of member. A member of the College is entitled to practise surgery, and to direct the medical treatment of his surgical cases. He has not the right to practise medicine. The exclusive right to practise surgery within the London district was granted by the charter of Charles I., and confirmed by the Act of Geo. II. A penalty of £5 can be recovered from all persons practising surgery in London who have no surgical qualification, and a similar penalty can be inflicted on any one practising surgery in England and Wales who is not qualified as a surgeon. Neither penalty is ever enforced by the College, nor will the College sanction prosecutions in its name by associations or individuals against peccant persons. The licence in midwifery is conferred, not only on those who already possess a licence to practise medicine or surgery, but on any one who has complied with the educational regulations of the College relating to the licence. Registration of the licence enables the holder to practise midwifery and recover his fees. About three years ago considerable consternation was created at the College by the discovery that, owing to the use of the word "person" in the charter of 1852, the College could not refuse to admit women to the examination in midwifery if they presented the requisite certificates. Three ladies applied for admission in 1876. The opinion of counsel proved favourable to their claims. Their certificates were presented, and accepted by the College as satisfactory. The examiners in midwifery, backed by the voices of the Obstetrical Society and the Metropolitan Branch of the British Medical Association, resigned their appointments. The College was saved. The ladies were informed that the examinations for the licence could not be held, and very opportunely the passing of Russell Gurney's Enabling Act diverted the candidates to the more friendly and unobstructed portals of the King and Queen's College of Physicians in Ireland. Since then the examinations for the midwifery licence have been in abeyance. The College calendar announces, "There have not been any appointments made during the last three years, and the examinations are suspended until further notice."

THE ROYAL COLLEGE OF SURGEONS IN IRELAND

arose out of an association of barbers, called the Guild of St. Mary Magdalene, in the city of Dublin. This guild, which was both a sisterhood and a brotherhood, was established by a charter of Henry VI., in 1446, for the advancement and exercise of the art of chirurgery. In 1576 a charter granted by Queen Elizabeth united the guild with the "Fraternity of Barbers." Dissolved in 1686, the Corporation was reconstituted by a charter from James II., in 1687, under the name of the "Master, Wardens, and Brothers of the Arts of Barber Chirurgeons, Apothecaryes, and Periwig Makers of the Guild or Fraternity of St. Mary Magdalene." The separation of the barbers and surgeons was effected in 1784. The surgeons then obtained a charter from George III. This charter was superseded by another, granted by George IV. on June 2nd, 1828, which incorporated the College under the name of the "Royal College of Surgeons in Ireland." The provisions of the charter were largely modified by a supplemental charter granted by the reigning sovereign in 1844. The supplemental charter declares that the Corporation is to consist of fellows, and sets forth the rights of licentiates, who are to exercise and enjoy all rights of practice in the art or science of surgery or otherwise which were commonly enjoyed by the members of the College, and to have free access to the library and museum, and be admissible to the fellowship, subject to the regulations of the Council. Future fellows are to be of greater age, and pass through a higher and longer course of study than licentiates. The executive is entrusted to a Council of 21, consisting of a president, vice-president, and 19 ordinary members, chosen by ballot by the fellows on the first Monday of June every year. Provision is made in the charter for the admission of fellows by examination, and for examinations and certificates of qualification in midwifery. The Council is supreme during its year of office. By ordinance of the Council 3 standing sub-committees are nominated—1, a treasury committee ; 2, a committee of economy and finance; 3, a committee of inspection to investigate the claims of candidates for the fellowship or licence, and to report to the Council thereon prior to issuing orders for the examination of such candidates. The revenue of the College is derived from the fees of candidates for the diplomas. In 1872 a return was made of the revenue for the five preceding years for the purposes of the

conjoint scheme for Ireland. The income for five years amounted to £15,168 6s., giving an average of rather more than £3,000 a year.

The diplomas granted by the College are four in number—the Letters Testimonial, the holders of which are called Licentiates; the Fellowship, the Midwifery Diploma, and the Diploma in Dental Surgery. The midwifery diploma is conferred only upon the licentiates of the College. The dental diploma was instituted in 1878, after the passing of the Dental Practitioners Act, and has been conferred on 132 practitioners.

In 1873 there were 361 fellows, 19 honorary fellows, and 2,362 licentiates.

A Parliamentary Return issued in 1870 showed that in the five years, 1865–1869 inclusive, 41 new fellows, 478 licentiates, and 39 licentiates in midwifery, were admitted. Hence it will be seen that a very small proportion of the licentiates take the separate midwifery diploma.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH

"owes its origin to a 'Seill of cause granted by the Town Counsell of Edinburgh to the craft of surgery and barbouris' in 1505, and confirmed by James IV. in 1506. The privileges then granted to the College included 'ains in the year ane condampnit man after he be deid to make anatomia,' and 'that na person man or woman mak or sell ony aqua vite except the saidis maisteris.' The exclusive privilege given to the barber surgeons of practising surgery and pharmacy was originally restricted to Edinburgh; but 'a gift and patent' by William and Mary, ratified by an Act of Parliament of 1694, extended it over the three Lothians and the counties of Fife, Peebles, Selkirk, Roxburgh, and Berwick." This district was called the Edinburgh district, to distinguish it from the Glasgow district. The Act of Parliament referred to gave to the college "plenum et liberum privilegium licentiam et potentatem faciendi et exercendi utramque artem chirurgiam et pharmaciam." Hence, licentiates of the College have the right of practising pharmacy as well as surgery, and with but few exceptions they have been accustomed to act as general practitioners or surgeon-apothecaries. A private Act of Parliament (13 Vic., c. xxiii.), passed in 1850, dissociated the College from the Corporation of the City of Edinburgh, and was followed by a charter in 1851. Before the Medical Act of 1858 the licentiates were reputed to possess the

right of practising both medicine and surgery. Candidates for the licence were regularly examined in medicine and pharmacy as well as in surgery; and, as the College of Physicians of Edinburgh stood aloof from the general practitioner, a large proportion of medical men in Scotland were only furnished with the licence of the College of Surgeons of Edinburgh. Then came the Medical Act requiring the separate registration of medical and surgical qualifications; and the College of Surgeons virtually abandoned its privilege of conferring a double licence by uniting with the College of Physicians of Edinburgh to conduct a common examination in medicine and surgery, and to confer a double qualification.

The Corporation consists of the order of Fellows.

The Fellowship of the College is conferred by ballot. Every fellow is entitled to attend all the meetings of the College and to take part in its proceedings. The executive authority is in the hands of a Council of eight, formed by the president, six ordinary fellows, and the treasurer. The president and the treasurer are elected annually, on the third Wednesday in October, by a majority of the votes of fellows present at a meeting called for the purpose. On his election the president proposes to the College six ordinary fellows as councillors, who must be appointed by the fellows. At the same annual meeting five fellows are chosen as a committee to audit the accounts.

The diplomas granted by the College are the Licence and the Fellowship. On the 17th October, 1877, the number of fellows was 373. The clerk of the College informs us that there is no fully printed list of the licentiates, and that the exact number is not known. 628 were admitted during the five years 1865–69, so that probably the actual number lies between 3,000 and 4,000. During the same five years 407 double qualifications were granted by the College in conjunction with the College of Physicians.

The revenue of the College amounted during the year ending 30th September, 1877, to £2,576 10s. 11d., and the expenditure to £1,256 8s. 8d., leaving a surplus of £1,320 2s. 3d. Of the £2,576, £1,345 10s. came from the fees of candidates, £775 from fellowships, £110 11s. from rent of lecture-rooms, and £341 15s. 11d. from dividends. Expenditure consisted of—salaries, &c., £403 11s.; fees to examiners, £269 17s.; rates, taxes, coals, gas, repairs, &c., £274 18s. 7½d.; and various small items—printing, advertising, museum, books, stationery, diplomas, &c.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW

was founded in 1599 by Charter granted by James VI., and ratified in 1672 by Act of Parliament. Power was given to the College "to examine all persons possessing or using the art of chirurgery and to give them testimonials according to their art and knowledge," and also to inspect drugs, &c., sold in Glasgow. The district assigned to the jurisdiction of the College included the counties of Lanark, Renfrew, Ayr, and Burgh, and the barony of Dumbarton. Within these bounds no one was to exercise the art of medicine without a testimonial of a famous university in which medicine was taught, nor could anyone practise as a surgeon unless he were a member of the Glasgow Faculty. The penalty imposed by the Charter was enforced on several occasions, but in 1850 an Act (13 Vic., c. xx.) was passed enabling the fellows and licentiates of the College "to enjoy the same status and privileges as if the said Faculty had been specially authorised by law to grant licences and diplomas in surgery, conferring the same status and privileges as those conferred by any other Corporation or Royal College in Scotland." The exclusive rights of the College were resigned. It would appear from the Charter that the College is in reality a College of Surgeons, and that licentiates and fellows are entitled to practise surgery only. On the other hand, it has been argued that as the College diplomas are to confer the same privileges as those conferred by any other Royal College in Scotland, and as the licentiates of the Edinburgh College have been accustomed to practise pharmacy and medicine on the strength of the patent given by William and Mary, it would naturally follow that Glasgow surgeons should be entitled to practise medicine as well as surgery. Virtually the College has abandoned its medical pretensions by joining with the Edinburgh College of Physicians to confer a double qualification.

The Corporation consists of fellows. Fellowships are granted both to physicians and surgeons. Election to the fellowship takes place by ballot. The executive authority is in the hands of a Council of eight, consisting of a president, visitor (vice-president), treasurer, the representative of the faculty in the general medical council, and four ordinary councillors. The president, visitor, treasurer, and one councillor are elected at the annual meeting. There are a finance committee, consisting of the president and five

members, and a library committee of six members, in addition to their respective chairmen. Resident fellows—*i. e.*, fellows residing within five miles from the Faculty Hall—are alone eligible to the appointments. Two inspectors of drugs are selected from the resident fellows to visit and inspect all shops and other places in Glasgow where drugs are sold, agreeably to the powers contained in the Faculty's charter.

The only diploma granted by the College is that for the Licence. The Fellowships are conferred without the gift of parchment or vellum. The College unites with the College of Physicians of Edinburgh to confer a double qualification in medicine and surgery. The number of fellows on the list in October, 1878, was 168, three being honorary. The secretary informs us that since October, 1858, the number of licentiates admitted is close upon 1,300. He thinks the actual present number would probably be rather under than over 1,000. The statement of the income and expenditure for the year ending 30th September, 1878, shows that the ordinary revenue amounted to £2,290 10s., and the ordinary expenditure to £1,088 16s., leaving a balance of £1,201 in the bank. The revenue comprised £641 14s. 2d. in the bank at the beginning of the year. Fees for fellowship, £325; fees from professional examinations, £551 14s.; from preliminary examination, £58; and £674 16s. from interest of capital. The expenditure consisted of £294 7s. 4d. for books and binding; £332 15s. for salaries and honoraria; £37 16s. for botanic garden; £99 4s. 7d. for printing, advertising, stationery, &c.; £106 17s. 8d. for expenses connected with the hall; £85 9s. 2d. for the annual dinner; £64 13s. 9d. for lectures and smaller items. The net revenue was £1,648 15s. 10d., and the net expenditure £1,088 16s., a balance of £559 19s. 10d.

THE COLLEGES OF PHYSICIANS

grant licences to practise medicine and midwifery, the holders of which are called licentiates. Candidates for the licences must be twenty-one years of age, of good moral character, must pass through a prescribed course of study, pay the fees, and undergo the necessary examinations. The licentiates of the Colleges are not allowed either by themselves, co-partners, or servants, to keep public apothecaries', druggists', or chemists' shops, on pain of forfeiture of their diplomas. Licentiates are not integral portions of the body politic and corporate of the Colleges, and, therefore, do

not enjoy any share in their government. The governing power resides with the fellows of their respective Colleges, but at the Royal College of Physicians of London and Edinburgh there is an order called members, and a new charter has recently been obtained by the King and Queen's College of Physicians in Ireland to assimilate its constitution to that of the London College. No one can become a fellow unless he has been a member for a certain length of time. The members are excluded from office and administration. At the Edinburgh College they are summoned to meetings of fellows and members. At the London College they are merely admitted to the use of the library and museum.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON

owes its origin to a Charter of Incorporation granted to the physicians of London in the tenth year of the reign of King Henry VIII. Before this time the clergy exercised medical functions, and the bishops held the chief jurisdiction over the faculty of medicine. An Act of Parliament passed in the third year of the reign of Henry VIII., after recounting the grievous hurt, damage, and destruction done to many of the King's "liege people by common artificers, smiths, weavers, and women taking upon themselves great cures and things of great difficulty, partly by using sorcery and witchcraft, and partly by applying such medicines unto the diseases as be very noxious and nothing meet therefore," ordains that no person within the city of London, nor within seven miles of the same, take upon him to exercise and occupy as a physician or surgeon, except he be first examined, approved, and admitted by the Bishop of London and the Dean of Paul's for the time being, calling to him or them four doctors of physic, and for surgery other expert persons in that faculty. Practitioners in the country were authorised by the Bishop of each diocese, or, in his absence, by the Vicar-General. The power and authority thus vested in the Bishops were transferred to the physicians by the Charter of Henry VIII., and were confirmed by Acts of Parliament, 14 & 15 Henry VIII., c. 5, and 32 Henry VIII., c. 40. The rights of the Universities of Oxford and Cambridge were specially reserved. By virtue of the 32 Henry VIII., c. 40, Fellows, Licentiates, and extra-Licentiates have the right of practising physic in all its members and parts, and by the 3 Henry VIII. surgery and surgeons are expressly included within that faculty. By the Surgeons' Act

(18 George II., c. 15), confirming a Charter of Charles I., the surgical rights of physicians are reserved. The Apothecaries' Act preserved their medical rights. The qualifications of the London College of Physicians entail the legal right to practise both medicine and surgery. By the 14 & 15 Henry VIII., c. 5, no one is allowed to practise medicine (including surgery) within the city of London and seven miles round, without the licence of the College, under a penalty of £5 a month for every whole month of such practising. Surgeons and apothecaries were prohibited from practising medicine by an Act passed in Queen Mary's reign. These exclusive privileges were rigorously asserted and enforced by means of fine and imprisonment. In the 13th year of Elizabeth a surgeon was fined £20 for practising medicine, and the prosecutions continued throughout the 17th and 18th centuries. In the 19th century occurred the last prosecution in which the College engaged. In 1828 Dr. Edward Harrison was prosecuted for practising in London without a licence. The practice was found to be surgical, and although the faculty of physic includes surgery, the College was non-suited, and had to pay the costs. The surgeons had long struggled without success to obtain the right of ordering medicines for their patients. The College of Physicians would not yield the point, until compelled by judicial decisions. Victory ultimately declared for the surgeons, who were enabled also to recover at law the amount of their bills for the medicines supplied. A long war was waged by the College against the apothecaries. Prosecution, fine, and imprisonment were applied to them as impartially as to the surgeons. By the Act of Queen Mary apothecaries were not only forbidden to practise physic, but required not to divulge the names of medicines, or to deliver the prescriptions of physicians to the patients. In 1703 an appeal was made to the House of Lords in the case of the Physicians' College *v.* Rose, and a decision was given in favour of the defendant. By this judgment the right of apothecaries to prescribe and dispense medicine was affirmed, and the physicians definitively retired from the contest.

The charter granted by Henry VIII. and the subsequent Acts of Parliament placed the College of Physicians in a pre-eminent position. It was the undoubted head of the medical profession, and by wise legislation it might have attracted to it the bulk of the general practitioners of the country. Unfortunately its great aim was to conserve the interests of consulting physicians and keep

that body of practitioners as select as possible, free from the contamination of those who dispensed their own medicines and took less than the guinea fee. Its ample legal powers were directed rather against surgeons and apothecaries than against ignorant pretenders and quacks. So exclusive was it that a member of the College of Surgeons who desired to become a licentiate of the College was obliged to renounce his connexion with the surgical corporation by obtaining a disfranchisement, for which the College of Surgeons demanded at one time forty, at a later period twenty, and ultimately ten guineas. An apothecary, in like manner, was obliged to forswear his apothecaryship. The consequences of the College declining to superintend the education and examination of the general practitioners of the country were that it lost the opportunity of granting a double qualification which would have been eagerly sought, and threw the medical qualification of practitioners into the hands of the Apothecaries' Society, and the surgical qualification into the hands of the College of Surgeons. Not till after the passing of the Medical Act of 1858 did it awake from its lethargy and offer to the general practitioner a licence to practise medicine, surgery, and midwifery. The step was taken too late for the recovery of its lost ground. Before 1859 the licence of the College was conferred only on those who practised as consulting physicians. In 1859, however, a new act repealing the stamp duty on the licence was obtained, and new by-laws framed. In accordance with the provisions of the by-laws licentiates of the college who had been admitted before the 1st of October, 1859, received the title of members of the college. This change was for the purpose of instituting a licence on a new basis, open to all, and offering to those who intended practising as general practitioners a more dignified qualification than that conferred by the Apothecaries' Society, whose association with the drug trade necessarily lowers the æsthetic value of the licence of the Society, compromises the position of the general practitioner, and encourages the public to obtain advice as well as medicine from dispensing chemists. The licence in its new form was first conferred in 1861.

The government of the Corporation is vested in the president and fellows only. The executive authority is committed to a Council of eighteen members, consisting of the president, four censors, the treasurer, and twelve other fellows. Four councillors retire annually by rotation, and are not re-eligible till they

have been a year out of office. The president, the censors, and the treasurer, as well as four councillors, are elected annually. The president and the censors form a board for inquiring into and testing the qualifications of all the candidates for the membership before such candidates are proposed to the fellows for election and for other purposes. The censors are the auditors of the College accounts. A committee and a librarian control the library, and the anatomical and materia medica collections are under the care of curators, consisting of the president and four fellows of the College. The orders of practitioners connected with the College are Licentiates, Extra-licentiates, Members, and Fellows. Licentiates are not allowed to assume the title of Doctors of Medicine. They can compound and dispense medicines for their own patients. Candidates for the membership must be twenty-five years of age, and submit to an examination more or less comprehensive, according to circumstances. No candidate is admitted to an examination who is engaged in trade or who dispenses medicine, or makes any engagement with a chemist or with any other person for the supply of medicines, or who practises medicine or surgery in partnership so long as that partnership continues. No candidate can be admitted who refuses to make known the composition of any remedy he uses if required by the president and censors so to do. Members of the College of four years' standing, distinguished in medicine or medical science or literature, are alone eligible to the fellowship. Four ordinary meetings of fellows are held annually, and extraordinary meetings whenever the president thinks fit. At elections the votes of the fellows are taken by ballot. Candidates for office or distinction in the College are forbidden to canvass the fellows for votes, either personally or by letter. The Council prepares business for the meetings of the fellows. Every by-law or regulation of the College proposed at a meeting must be approved by a majority of the fellows present at a general meeting duly convened. Two general meetings must approve the enactment, alteration, and repeal of a by-law; one general meeting suffices for a regulation. The College was constituted as follows:—

| | 1868. | 1870. | 1878. |
|---|---|---|---|
| Fellows, . . . | 231 | 225 | 298 |
| Members, . . . | 574 | 476 | 492 |
| Licentiates, . . | 533 | 610 | 1,072 |
| Extra Licentiates, . | 153 | 136 | 96 |

The income of the College in 1877 was £4,642, and the expenditure £3,890. Income included a balance of £973 2s. 7d. Rents and rent-charges, £587 10s. 7d.; dividends, £280 4s. 6d.; fees of fellows, less stamp duty, £378; fees of members, £677 5s.; fees of licentiates, £1,706 5s. Expenditure included *honoraria* to officers, £780 9s.; examiners, £931 10s.; salaries, £227 16s.; wages, £127 18s.; rates and taxes, £227 14s. 6d.; printing, stationery, stamps, and advertisements, £337 15s. 5d.; library, £134 8s. 5d.; coals, water, gas, insurance, house expenses, and sundries, £113 15s. 10d.; *conversazione*, £88 17s. 3d., &c. Expenditure on trusts, £169 4s. 6d.; on estates, £75 18s.

By the by-laws, fellows of the College are prevented from recovering their fees from patients by action at law. The prohibition does not extend to members or licentiates. The 30th section of the Medical Act of 1858 expressly reserves to any College of Physicians the right to make such a by-law, and "thereupon such by-law may be pleaded in bar to any action" for the recovery of fees.

THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH

was founded by charter obtained from King Charles II., on St. Andrew's Day, 1681, and ratified by Act of the Scottish Parliament on the 16th June, 1685. The charter confined the qualification of fellows and licentiates of the College to the practice of medicine only, thus conserving the rights of the surgeon-apothecaries. Penalties were prescribed for those who practised medicine within the district under the jurisdiction of the college without its diploma—graduates of the Scotch Universities being specially exempted from fine. A new charter was obtained in 1861.

The College consists of fellows and members. The fellows possess the administration of the property and internal affairs of the College, the enactment of laws, the election of fellows and members, the admission of licentiates, and the election of president and council. No one can be elected a fellow unless he has been one year a member and is twenty-five years of age. Election of members to the fellowship is by ballot—a majority of three-fourths being required. Thus the order of member is a stepping-stone to the fellowship. Any licentiate of a College of Physicians, or University graduate, with whose knowledge the College may be satisfied, may be admitted a member, provided he has attained the age of twenty-four years.

The mode of admission is election by ballot. The executive authority is entrusted to a Council of eight, consisting of a president, vice-president, and six ordinary councillors. The president and the six councillors are elected annually by the fellows. The vice-president is nominated by the president. All committees are appointed by the president. The fellows are summoned to four ordinary meetings every three months, and to an annual meeting for the election of officers. Fellows resident within five miles from the Post Office, Edinburgh, are placed on the roll of attendance, and are subject to pay the annual contribution and fines. Any fellow may petition to have his name taken off the roll of attendance. Insertion of the names of fellows resident beyond the five-mile radius on the roll is optional.

The College does not publish a balance sheet.

The diplomas conferred by the College are three: the Fellowship, the Membership, and the Licence. The licence alone is awarded as the result of examination. Prior to 1829 a licence to practise had been issued by the College; but in accordance with the provisions of the charter it had only been conferred on University graduates. In 1763 the licence had been made a stepping-stone to the fellowship; but in 1829 the rule was abrogated on account of the tax imposed by the Government on the diplomas of the College bearing hardly upon the fellows, who were mulcted twice over—once for the diploma of licentiate, and once for that of fellow. Thus the issue of a licence ceased altogether, and it became a subject of frequent and warm debate whether another class of licentiates unconnected with the Universities ought to be created or not. At the College there were a University party and an anti-University party—the former being opposed to licensing any general practitioner who was not a graduate, and the latter being in favour of throwing open the licence to the general practitioner unconditionally. The policy of the latter prevailed in April, 1859, in the face of a strong opposition from University professors and a large section of fellows. For the purpose of inaugurating the new policy with becoming *éclat*, a year of grace was proclaimed—an idea borrowed from the London College of Physicians and amplified for the occasion. Nominally the licence was intended to attract chiefly practitioners of mature age who were desirous of replacing the title Apothecary by the time-honoured name of Physician. It actually attracted a number of young men who had completed

their studies at the medical schools. The College was not in want of funds, and did not throw open the licence for money. The pecuniary success of the step was very striking. The licence conferred no right to the title of Doctor; the title of Doctor was added to the visiting card of successful candidates. Examination was not always waived; but candidates were peculiarly successful. The results gave occasion for severe animadversion on the policy of the College; and even the College recognised the impropriety of conferring medical licences without examination on candidates who had never undergone for the diplomas which they held any examination in medicine, materia medica, or midwifery. In the full fruition of success the College, through its representative in the General Medical Council, gave conspicuous proof of its upright intentions by promoting the following resolution, which was carried in the Council as an amendment to one of a stronger character:—"That the General Medical Council are of opinion that for the future no licence or degree should be given by any of the Bodies in schedule A. of the Medical Act without examination."

In 1868 the fellows numbered 148, 60 being on the roll of attendance; in 1878, 165, 73 on the roll. In 1868 the members numbered 40; in 1878, 133. In 1868 the licentiates numbered 2,045; in 1878, 3,778.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND

was instituted in 1667, when Charles II. granted a charter of incorporation to the president and fellows of the College of Physicians of Dublin. This charter was surrendered in December, 1692, for a new one granted by William and Mary. Some exclusive privileges were conferred. No person was allowed, under a penalty of £10 a month, to practise physic in Dublin or within seven miles thereof unless he was a fellow or licentiate of the College, nor could any but graduates of Oxford, Cambridge, or Dublin practise in the rest of Ireland unless licensed by the College. To the College was entrusted the entire and absolute supervision of apothecaries, surgeons, and midwives. The fellowships were limited to 14. By statute 1 Geo. III., cap. 14 (made perpetual by 30 Geo. III. [1790], cap. 45, sec. 2), commonly called Lucas' Act, the number of fellowships was made unlimited, and candidates were required to be learned and worthy doctors of physic. By statute

40 Geo. III., cap. 84, commonly called the "School of Physic Act," no person could be elected to a fellowship except he were a bachelor of arts or a doctor of physic of Oxford, Cambridge, or Dublin, unless the number of fellows should at any time be reduced to six. This enactment was repealed by statute 25 Vic., cap. 15, which empowered the College to elect to its fellowship "such of its licentiates as are graduates of arts or doctors in physic of any University in the United Kingdom of Great Britain and Ireland, or of any foreign University, and also such of its licentiates, not being graduates in arts or doctors in physic, as under such limitations as to them may seem fit, may appear to the said president and fellows to merit such distinction." The constitution established by the late charter, &c., was as follows:—The Corporation consisted of fellows only. The fellows governed the College, electing annually the president, four censors, the treasurer, the registrar, the honorary librarian, and the members of committees. There was no council. The president appointed the vice-president. A meeting of president and fellows was called a "court" or "convocation." The orders connected with the College were fellow, honorary fellow, candidate, and licentiate. The order of "candidate" was abolished in 1782. Candidates were licentiates from whom the fellows were chosen on the occurrence of a vacancy.

Fellows were elected by the president and fellows.

Licentiates were never a numerous body, owing partly to the heavy stamp duty and partly to the existence of the order of "candidates." The total number of licentiates admitted to the 1st January, 1866, was 862, and of these a large number were admitted after the abolition of the stamp duty. By ancient usage the title Doctor has always been applied to a physician in Ireland, and therefore the College invariably applies the title Doctor to the fellows, honorary fellows, and licentiates of the College, whether graduates in medicine at a University or not. Licentiates of medicine of the College have been alone eligible to the fellowship. Election to the fellowship takes place by ballot. No fellow of a College of Surgeons is admissible to the fellowship, and fellows are obliged to bind themselves not to take the fellowship of a College of Surgeons so long as they continue to be fellows of the College of Physicians.

In virtue of Russell Gurney's Act the College has admitted women to the licence. One passed the examinations early in 1877,

and since then others have obtained the diploma. A Licence in Midwifery, open only to duly-qualified practitioners, is conferred by the College.

The new charter granted to the College provides for the creation of an order of Members, and for the formation of a Council.

In 1878 the number of fellows was 53, of honorary fellows 24, and licentiates 1,580. The number of licentiates in midwifery was 113. Five midwives and nurse-tenders were on the list of those licensed under the by-law adopted April 4th, 1874.

The income of the College probably amounts to about £1,500. The return of 1872 stated the income for 5 years at £7,168, or £1,433 12s. a year on the average. About 80 licentiates pass yearly, paying about £1,200.

### THE SOCIETY OF APOTHECARIES OF LONDON

was an offshoot of a company of spicers, importing drugs from the Levant, which was incorporated by charter in the fourth year of King James I., under the name of "The Wardours and Fellowship of the Mystery of Grocers in the City of London." In 1615 the apothecaries were divorced from the grocers and incorporated under the title of "Master, Wardens, and Society of the Art and Mystery of Apothecaries." This charter made a seven years' apprenticeship and submission to examination essential conditions for practising the art of an apothecary within the City of London or within seven miles of the same. The Apothecaries Act (55 Geo. II., c. 194) extended the jurisdiction of the company over the whole of England, and rendered everyone practising as an apothecary without a certificate liable to a penalty of £20. Physicians and apothecaries alone could practise medicine in England and Wales. The exclusion still remains in force against unqualified persons in England and Wales who practise as apothecaries. During the passage of the Act through Parliament the chemists and druggists opposed the clauses which would have brought them under the jurisdiction of the Society, and succeeded in obtaining the insertion of clause 18, which secured their existing privileges. From this date all persons desirous of practising medicine and supplying drugs to their patients were obliged to be examined by the Apothecaries' Society and to pay the fees for the diplomas. The executive authority was entrusted to the Master, two Wardens

and Court of Assistants, who were to be elected by the members of the Society. The Apothecaries Act gave power to the master, wardens, and Society to enter apothecaries' shops, examine drugs, and destroy medicines, wares, and drugs, &c., which they should find false, unlawful, deceitful, stale, unwholesome, corrupt, pernicious, or hurtful, to report offenders to the Society, and have fines inflicted. Members of the Society of ten years' standing were alone made eligible to the Court of Examiners. This Court was to be chosen by the master, warden, and assistants. The number of examiners to be elected was fixed at twelve, and such examiners or any seven of them were to be called the Court of Examiners of the Society of Apothecaries. The Court was required to meet once a week at the hall. Five years' apprenticeship was demanded from all applicants for examination. Power was given to the master and wardens and Court of Examiners to appoint five apothecaries in any county or counties in England and Wales, except within the City of London, and 30 miles of London, to examine assistants in such counties, and to give or refuse certificates of qualification. The sums fixed for certificates were ten guineas for practising in London, or within 10 miles; six guineas for practising in any other part of England or Wales; two guineas for an assistant. Penalty for acting without a certificate—for practising as apothecary, £20; for acting as assistant, £5. Of the penalties recovered one half was to go to the informer, and one half to the master, wardens, and Society. The privileges of chemists and druggists and the rights of the Universities of Oxford and Cambridge and Colleges of Physicians and Surgeons were preserved. This important Act "created a body of qualified general practitioners in England and Wales, who were entirely independent of the Colleges of Physicians and Surgeons, and were entitled to practise medicine, not merely by sufferance, but by law. It curtailed the area of illegal practice, and secured at least a minimum qualification in medicine for the family doctor."

In 1875 the Act was amended by "The Apothecaries Act Amendment Act." The provisions of the Apothecaries Act, which required examiners to be selected from members of the Society of ten years' standing, and candidates for certificates to practise as apothecaries to have served an apprenticeship of five years, were repealed. The Society was enabled to form part of any conjoint examining board, to be constituted under the provisions of the

Medical Act of 1858, and to remove licentiates from their list for infamous conduct.

The Licentiates of the Society, as such, have no share in the government or any corporate privileges whatever. The number of licentiates is about 8,000. During the five years, 1865-69, 1,306 candidates obtained the licence—an average of 261 annually. A few years ago the income of the Hall, from the fees for the examinations, was less than the expenditure by about £40. As the number of candidates has not increased, it is probable that the licensing power is still exercised with a balance on the wrong side of the account.

THE "WORSHIPFUL SOCIETY OF APOTHECARIES" IN DUBLIN

was an unincorporated guild or civic company, of which, prior to 1745, the apothecaries of Ireland formed a part. The Guild of St. Mary Magdalene, incorporated originally by Henry VI., extended by Elizabeth, also admitted apothecaries, for it received from James II., in 1687, a charter under the title of the "Master, Wardens, and Brothers of the Arts of Barber Chirurgeons, Apothecaryes, and Periwig-makers of the Guild and Fraternity of St. Mary Magdalene." In 1745 the Dublin apothecaries separated from this guild, and were incorporated by charter from George II. into the Guild of St. Luke the Physician. In 1791 the 31st Geo. III., c. 34, transformed the Guild of St. Luke into the Corporation of Apothecaries' Hall. The Corporation or Company was to consist of a Governor, Deputy-Governor, and Council limited to 60 members. A Court of Examiners was to be appointed by the Council. The members of the Council were to be "judicious practising apothecaries," who had resided in the city, liberties, or suburbs of Dublin for seven years. Entrance into the Company could only be obtained by subscription, and members were required to hold shares in Apothecaries' Hall. Examiners were required to be "judicious practising apothecaries," passing to the office through the possession of a share in the Company. The Act aimed at regulating the profession of apothecary throughout the Kingdom of Ireland, and subjected all Irish apothecaries to the jurisdiction and control of the Company. Examination and approval by the Company were made necessary antecedents to opening a shop for the sale of drugs and dispensing medicines. Even apprentices, foremen, and shopmen were to be examined and approved by the

governors and directors of the Company on account of the "dangerous and fatal consequences which have heretofore arisen from the practice of taking as apprentices to the art and mystery of apothecary boys or persons disqualified by want of proper education to prepare or vend medicines." Those who were rejected by the examiners of the Hall could appeal to the College of Physicians, who would re-examine the rejected candidates in medicine only, and grant licences to practise pharmacy. The Act gave the directors of the Company full powers for the efficient government of the Corporation. The exclusive right of the licentiates of the Company of keeping shops for dispensing and compounding medicines was safeguarded with a penalty of £20. After the date of the Act of Incorporation the Apothecaries' Society directed its chief attention to the improvement of the professional education of its licentiates. A curriculum was framed, and examinations instituted, which embraced anatomy, surgery, and medicine, and all the usual subjects of professional education. In 1804 a scale of charges for visits, leeching, cupping, and vaccinating was fixed and suspended in the Hall. A school of medicine was established in 1832, and in 1858 the diploma which announced that the candidate had been duly examined in the principles and practice of medicine and pharmacy, and was qualified to practise the profession of an apothecary, was inserted in schedule (A) of the Medical Act. Then arose a series of contests on the question of the right of the Apothecaries' Society of Ireland to confer licences to practise medicine. For seven successive years the question was debated in the General Medical Council. Whatever may be the real merits of this much-vexed question, it would be impossible to marshal the opposing facts, considerations, and inferences without occupying time and space which may profitably be given to more pressing subjects. Nor is it necessary to do so, for the recognition of the Licence of the Society by the Medical Act of 1858, by the General Medical Council, by the Army and Navy Medical Department, and the Poor Law Board, would impart to the exercise an interest chiefly antiquarian. Jacob may have been wrongly blessed, but as he has received the blessing, the blessing must remain. The only qualification granted by the Hall is the Licence in Medicine. In 1869 the licentiates numbered about 1,400; 25 to 30 candidates pass annually, so that probably the present number is between 1,600 and 1700. In 1865, 23 passed; in 1866, 35; in 1867, 26; in 1868,

25; and 1869, 20. The income of the Hall from the fees of candidates amounted to £146 0s. 8d. for the five years ending in 1872—an average of £29 4s. 1¼d. a year. At the present time the income from the licence which, by the provisions of the Act of Incorporation, only costs 10 shillings, must be about £14 3s. 6d. a year. Is not this a *reductio ad absurdum?*

THE UNIVERSITIES IN ENGLAND

are four in number—viz., *Oxford*, *Cambridge*, *Durham*, and *London*. The Universities of Oxford and Cambridge are unions of Colleges and Halls, but in recent years the rule requiring students to enrol themselves in one of the Colleges or Halls has been relaxed, and a class of unattached students living in lodgings and private families has sprung into existence. This class is under a certain amount of discipline, and enjoys all University privileges. Each College and Hall is a separate community, governed by its own laws, and enjoying its own endowments and revenues. At Cambridge the terms College and Hall are synonymous, but at Oxford a College is a body corporate, independent of the University, having its own statutes, and possessing valuable fellowships, scholarships, and exhibitions of its own, whilst the term Hall means a society which has not been incorporated by charter, possesses no endowments for fellowships, and has all its property held in trust for it by the University. In other respects Halls are similar to Colleges, being places of residence for students who enjoy the advantages of tuition and academical restraint. The Colleges of Oxford and Cambridge form the great features of the University system which is imitated at Durham. The University of London is distinguished by the absence of the two main characteristics of a University. It is not a teaching body, and it does not require residence in any educational institution from the candidates for its degrees. It was constituted as an examining body only. A perfect University must combine residence, community, discipline, tuition, professorial instruction, examination, and incorporation. To confer degrees is a useful and honourable office, but falls very far short of the conception of University functions which is derived from the study of our ancient seats of learning.

THE UNIVERSITY OF OXFORD

enjoys the constitution prescribed by the "University Act of 1854." There are twenty-one Colleges and four academical Halls. The executive authority is entrusted to a Chancellor, elected by Convocation; a Vice-Chancellor, nominated by the Chancellor; and other officers. There are four assemblies: (1) The *Hebdomadal Council*, meeting once a week, and consisting of the chancellor, vice-chancellor, and eighteen elected members. The Council has the initiative of all legislation. The proposed measures come under the consideration of (2) the *Congregation of the University of Oxford*, which consists of official persons and members of Convocation qualified by residence. It elects the members of the Hebdomadal Council. Measures passed by the Congregation are brought before (3) *Convocation*, or the *House of Convocation*, consisting chiefly of all higher graduates who have kept their names on the books and paid statutable fees. The House transacts all the formal business of the University as a corporate body, except such as belongs to Congregation, elects to offices in the gift of the University, and confers honorary degrees. (4) The *House of Congregation*, consisting of professors and doctors of every faculty, resident in the University, heads of Colleges, masters of Schools, censors, deans of Colleges, if members of Convocation; all M.A.'s and doctors of every faculty for two years after admission to their degrees. The business is the ratification of appointment of examiners and granting ordinary degrees.

The medical degrees conferred by the University are two in number—Bachelor and Doctor of Medicine. The Licences have been abolished. Certificates are given in Sanitary Science. The Parliamentary return for the five years 1865–69 showed that only one M.B. degree had been conferred—not a single M.D.—and 12 licences. In three years (1874, '75 and '76) 13 passed the M.B. examinations and 3 proceeded to the M.D.

The existing medical endowments at Oxford consist of—1. The Regius Professorship of Medicine, founded by King Henry VIII., and worth about £500 a-year. 2. Lord Lichfield's Clinical Professorship, worth about £200 a-year. 3. The Linacre Professorship of Physiology and Anatomy, worth £800. It has absorbed the old foundations for the encouragement of human anatomy—namely, the Tomlinsian Prœtectorship and the Aldrichian Professorship.

4. A separate Demonstratorship of Anatomy, worth £200 a-year. 5. The Physic Garden, founded in 1622 by the Earl of Danby. The chair of Botany, endowed by Dr. Sherrard, is worth about £400. 6. Dr. Matthew Lee's trust fund, worth £3,400 annually—now applied partly to support a chemical laboratory, and to pay in part the salaries of the chemist, zoologist, and physicist, who are styled Lee's Readers.

The application of the medical endowments at Oxford has attracted considerable attention, and induced some severe adverse criticism, under the designation of "The Lost Medical School at Oxford." The original intention of the foundations is not carried into effect. The Regius Professor in Medicine does not deliver lectures on medicine, and before the discussion commenced the Clinical Professor gave no clinical instruction. These professorships were assigned to the department of "Physical Science and Mathematics," the idea underlying the arrangement being that the preliminary scientific studies at the foundation of medicine should be cultivated, and that it would be useless to encourage strictly medical and practical education. So the Linacre Professor is engaged in teaching Comparative Anatomy to candidates for the B.A. degree, and the Demonstrator of Anatomy has become the Curator of the Museum of Comparative Anatomy. Dr. Lee's trust fund, intended to provide for anatomical teaching in relation to medicine exclusively, has been diverted to pay classical scholars from the Westminster school, and to promote natural science. It is true that the present application of the fund has received Parliamentary sanction, and that the Commissioners do not favour the movement to restore to medicine the funds now devoted to science, but it is equally true that all the materials exist at Oxford for a medical school not inferior to that which flourishes at the sister University.

### THE UNIVERSITY OF CAMBRIDGE

is regulated by the statutes confirmed by Queen Victoria by Order of Council on July 31, 1858. The executive authority is committed to a Chancellor, elected by the Senate; a Vice-Chancellor, similarly chosen; and other officers. The legislative authority resides in the *Senate* and the *Council of the Senate.* The *Senate* comprises all masters of arts or laws and doctors of the faculties of divinity, law, and physic whose names are upon the register. The

*Council* consists of the chancellor, vice-chancellor, four heads of Colleges, four professors of the University, and eight other members of the Senate chosen from the electoral roll published by the vice-chancellor. An assembly of the Senate is called a congregation—an act of the Senate a grace. Every University grace must be approved by the Council before it can be offered to the Senate. The business of the University is transacted by the Senate.

The medical degrees conferred by the University of Cambridge are three—Bachelor and Doctor of Medicine and Master in Surgery. Certificates in sanitary science are given. The Licences in Medicine and Surgery have been abolished. During the five years 1865–69, 19 obtained the M.B. degree, 15 the M.D., and 4 the M.C. During 1874, '75, and '76, 35 passed for M.B., 12 proceeded to the M.D.. and one obtained the degree of C.M.

The natural-scientific, and medical professorships at Cambridge are—

The Regius Professorship of Physic, founded 1540; emoluments, £34 18s. 6d., house and premises.

The Professorship of Chemistry, founded 1702; emoluments, £500 per annum from University chest.

The Professorship of Anatomy, founded 1707; emoluments, £300 per annum from chest.

The Professorship of Botany, founded 1724; emoluments, £300 per annum.

The Woodwardean Professorship of Geology, founded 1727.

The Lowndean Professorship of Astronomy, founded 1749; £450—£250 for observations.

The Plumean Professorship of Astronomy, founded 1704.

The Downing Professorship of Medicine, founded 1801; emoluments, £400 per annum.

The Professorship of Mineralogy, founded 1808; emoluments, £300 per annum.

The Professorship of Zoology and Comparative Anatomy, founded 1866; emoluments, £300 per annum from chest.

The Professorship of Experimental Physics, founded 1871; emoluments, £500 from chest.

A Demonstrator of Human Anatomy was appointed in 1866; emoluments, £250 per annum.

A Superintendent of the Museums of Zoology and Comparative Anatomy in 1866.

A Demonstratorship of Chemistry is now held by two persons conjointly, one appointed in 1871 and the other in 1877; emoluments, £150 from chest.

A Demonstrator of Comparative Anatomy, appointed in 1876; emoluments, £100 from chest.

A Strickland Curator, appointed in 1874; emoluments, £150 from chest.

A Demonstrator of Experimental Physics, appointed in 1874; emoluments, £150 from chest.

A Curator of Zoology, appointed in 1877; emoluments, £100.

There is also an Assistant Demonstrator of Chemistry.

THE UNIVERSITY OF DURHAM

was founded in 1832, and incorporated by Royal Charter in 1837. The object in view was to afford to the populous northern counties the advantages of an inexpensive academical education. The University consists of a "Warden, Masters, and Scholars," and the system of the University combines domestic discipline with instruction and lectures. There are three foundations—Bishop Hatfield's Hall, University College, and Bishop Cosin's Hall. In 1870 a regulation was passed for the admission of students unattached to any College, or Hall, or House to University privileges, and making them eligible for endowments. In 1852 the School of Medicine of Newcastle-on-Tyne was affiliated to the University, and in 1870 was made a College of the University.

The medical degrees conferred by the University are three—Bachelor and Doctor of Medicine, and Master in Surgery. The University also grants, or is prepared to grant, Licences in Medicine and Surgery. During three years—1874, 1875, 1876—4 took the degree of M.B. and 2 that of M.D. In 1868 there were 21 doctors of medicine on the list of the University, and 2 bachelors of medicine. Four licentiates of medicine were on the list of members of the University. The licence in medicine is rarely sought or conferred, the licence in surgery never.

The Senate of the University is composed of the warden, the professors of divinity, Greek, and mathematics, of the two proctors, and five other members of Convocation. The Convocation consists of all such persons as have been regularly admitted to the degrees of doctor and master in the faculties and have conformed to the regulations of the University.

THE UNIVERSITY OF LONDON

owes its origin to the religious exclusiveness of the Universities of Oxford and Cambridge. In 1826 a movement was set on foot, which resulted in the formation of a joint stock company and the erection of University College, Gower-street, at first termed "London University," for the education of students of every creed without distinction. To counteract the presumed mischief of an institution affording only a secular education, King's College was founded soon afterwards in connexion with the Church of England. In 1836 "London University," Gower-street, became University College, London, and the real "University of London" came into existence. The basis of the University was equality in every respect with Oxford and Cambridge, with entire freedom from exclusive and religious tests and distinctions. A new charter was granted in 1837. In 1854 the Medical Graduates Act (17 & 18 Vict., c. 114) was passed, and the University was enabled to give its graduates licence to practise medicine in any part of the United Kingdom, except London and within seven miles of it. The present charter is dated January 6, 1862. The University consists of a Chancellor, Fellows, and Graduates. There are 36 fellows, exclusive of the chancellor and vice-chancellor. The fellows are appointed by the Crown so long as their number amounts to or exceeds 25. If reduced by death or resignation below 25, the Senate elects 12 or more to complete the 36, but at least one-fourth of the number must be chosen from a list nominated by Convocation. The chancellor, vice-chancellor, and fellows constitute the Senate of the University. The Chancellor is appointed by the Crown for life. The Vice-Chancellorship is an annual office. Convocation consists of all doctors of laws, medicine, science, masters of arts, bachelors of arts, medicine, and law, of two years' standing, and other graduates. A register of the members of Convocation is kept, and all on the register are entitled to vote. For registration an annual fee is paid, commutable by composition. Non-payment involves loss of the privilege of voting and removal of the name from the register. The Senate has entire management of the concerns and affairs of the University, with full power to make and alter by-laws and regulations touching the examination for degrees and granting of the same, all such by-laws and regulations having first been approved by one of the Principal Secretaries of State.

The medical degrees conferred by the University are Bachelor and Doctor of Medicine, Bachelor of Surgery, and Master in Surgery. In the calendar for 1878 there were 309 Doctors of Medicine, 11 Masters in Surgery, and 292 Bachelors of Medicine—in all 612 medical graduates. Certificates are granted in subjects relating to health.

The following table, taken from the Calendar, gives the number of candidates for each of the examinations for the medical degrees, and the number passed since the foundation of the University:—

| | Prel. Sci. | | 1st M.B. | | 2nd M.B. | | M.D. | | B.S. | | M.S. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cand. | Passed | Cand. | Passed | Cand. | Passed | Cand. | Passed | Cand. | Passed | Cand. | Passed |
| 1838-69 | 814 | 465 | 1,202 | 849 | 660 | 563 | 311 | 278 | 13 | 13 | 13 | 11 |
| 1870 | 98 | 34 | 49 | 32 | 24 | 24 | 16 | 11 | 3 | 3 | – | – |
| 1871 | 118 | 43 | 39 | 28 | 26 | 19 | 17 | 12 | 2 | 2 | – | – |
| 1872 | 117 | 48 | 38 | 26 | 28 | 25 | 14 | 9 | 4 | 4 | 1 | 1 |
| 1873 | 143 | 67 | 37 | 30 | 27 | 22 | 21 | 17 | 5 | 5 | 1 | 1 |
| 1874 | 156 | 93 | 42 | 27 | 25 | 19 | 19 | 14 | 5 | 5 | 1 | – |
| 1875 | 185 | 107 | 68 | 50 | 28 | 19 | 10 | 6 | 7 | 7 | – | – |
| 1876 | 178 | 97 | 66 | 44 | 34 | 23 | 17 | 11 | 9 | 7 | 1 | 1 |
| 1877 | 166 | 90 | 92 | 48 | 32 | 22 | 15 | 8 | 6 | 3 | 1 | 1 |

Convocation has the occasional power of nominating three persons to be fellows, and from this list the Crown selects one fellow for a seat on the Senate. It may discuss any University matter, and declare its opinion; has the right of deciding as to the recognition of degrees in the terms proposed by the Senate; the power of accepting any new or supplemental charter for the University, or consenting to the surrender of any charter, the consent of the Senate being also requisite. Convocation must be summoned to meet at least once a year. Convocation elects a committee, called the Annual Committee, to represent its interests in the intervals between its meetings.

The Senate draws up a list of medical institutions from which certificates are to be received, and submits it to the Secretary of State.

In 1867 a supplemental charter enabled the Senate to hold special examinations for women, and grant them certificates of proficiency in literature, science, and art.

In 1878 a supplemental charter enabled the University to grant all its degrees to women. The Senate has issued regulations for that purpose.

By the Reform Act of 1868 the University returns one member to serve in Parliament. The constituency consists of the members of Convocation. The number of members of Convocation was 1,768 on the 1st of April, 1878.

THE UNIVERSITIES OF SCOTLAND

are under the common constitution given to them by the Universities (Scotland) Act, 1858 (21 & 22 Vict., cap. 83), intituled "An Act to make Provision for the better Government and Discipline of the Universities of Scotland, and Improving and Regulating the Course of Study therein, and for the Union of the Two Universities and Colleges of Aberdeen." This constitution is the following:—The Universities are Corporations consisting of a chancellor, rector, principal, professors, registered graduates, alumni, and matriculated students. There are three assemblies for the government of each Corporation—the University Court, the Senatus Academicus, and the General Council. The chancellor is elected for life by the General Council. There is a vice-chancellor nominated by the chancellor, and acting for him in his absence in conferring degrees, but in no other respects. In the absence of the vice-chancellor the senior member of the Senate acts for him. The vice-chancellor is the returning officer at Parliamentary elections. The Principal is the resident head of the College and president of the Senate. He holds office for life. The Senatus Academicus, or Senate, is composed of the principal and the professors. It superintends the discipline and teaching of the University, and administers the revenue and property, including the library and museum and University buildings. The Professors are arranged in four Faculties—Arts, Theology, Law, and Medicine. The University Court consists of the rector, the principal, and assessors. At Edinburgh the Lord Provost has a seat. The University Court is set over the Senate; supervises the professors ; regulates fees ; has the patronage of some of the chairs and examinerships; controls the administration of the revenue and expenditure by the Senate ; and can alter or

revoke, with the consent of the chancellor and approval by Her Majesty in Council, the rules, statutes, and ordinances of the University Commissioners. The General Council of the University consists of the chancellor, the members of the University Court, the professors, masters of arts, doctors of medicine and science, bachelors of divinity, law, medicine, and science, and some of the students who matriculated before 1861. It has the right of deliberation, consideration of internal improvements, and representation to the University Court.

The Act of 1858 established an Executive Commission with very wide powers to obtain information in regard to the wants of the Universities, and to issue ordinances requiring submission to Parliament and the approval of Her Majesty in Council before becoming effective. The ordinances issued between 18th March, 1859, and the 20th December, 1862, made many alterations in the rules for graduation and study, and founded several new professorships. The degree of M.B. was substituted for the degree of M.D. as the degree qualifying for ordinary practice; and the degree of C.M. or Master in Surgery was instituted. The former change was made to assimilate the Scotch system of degrees to that practised in the English Universities, and the latter because, after the passing of the Medical Act of 1858, doubts arose whether a degree in medicine from any of the Universities which formerly "conferred on its holder a title to practise both medicine and surgery throughout Scotland, except it may be within certain limits over which exclusive privileges in regard to the practice of surgery were claimed by the Corporations of Surgeons of Edinburgh and Glasgow," would carry with it the practice of surgery, and could be registered both as a surgical and a medical qualification. The surgical degree instituted for this purpose ought to have been the B.S. or Bachelorship of Surgery. The Executive Commission must not be confounded with Royal Commissions, of which there has been a series from 1826. The last Royal Commission was appointed in May, 1876, and issued its report in February, 1878.

### THE UNIVERSITY OF EDINBURGH

was founded by a Royal Charter granted by James VI. The rights and privileges of the University were confirmed by an Act of the Scottish Parliament in 1621, and ratified in the treaty of union between England and Scotland, and by the Act of Security.

In the University there are officers called curators, seven in number, with the patronage of seventeen chairs, which previously to the Act of 1858 were in the patronage of the Town Council, and with a share in the patronage of five other chairs.

The Faculty of Medicine, which has its own Dean, comprises the chairs of botany, institutes of medicine, natural history, materia medica, anatomy, chemistry, medical jurisprudence (in conjunction with the faculty of law), midwifery, practice of medicine, clinical surgery, surgery, and general pathology.

THE UNIVERSITY OF ST. ANDREW'S

is the oldest in Scotland. It was founded by Bishop Wardlaw in 1411, and basked in the sun of prosperity which shone on it through the patronage of popes and kings and private benefactors. Three Colleges were founded—St. Salvator's, in 1453, by Bishop Kennedy; St. Leonard's, in 1572, by Archbishop Stuart and Prior Hepburn; and St. Mary's, by Archbishop Beaton, in 1537. In 1579 the Colleges of St. Salvator and St. Leonard were restricted to the teaching of philosophy, and the College of St. Mary's to theology. In 1747 the Colleges of St. Salvator and St. Leonard were united by Act of Parliament, and are known as the United College of St. Salvator and St. Leonard. To this College were assigned the faculties of arts and medicine. Each College has a Principal. The senior Principal according to priority of office is the resident head of the University and president of the Senate. There is a Dean of the Faculty of Arts. There are three professorships in the Faculty of Medicine—medicine and anatomy, chemistry, and civil and natural history.

THE UNIVERSITY OF GLASGOW

was founded by a Bull of Pope Nicholas V., dated January 7th, 1450-1. The Bishop of Glasgow and the Chapter, the same year, framed statutes and instituted the University. The Faculty of Medicine includes the professorships of botany, chemistry, materia medica, anatomy, physiology, or institutes of medicine, natural history, medicine, surgery, midwifery, forensic medicine, clinical surgery, and clinical medicine.

THE UNIVERSITY OF ABERDEEN

consists of two foundations united by ordinance of the Executive Commission in 1860 into one University and College, under the style

and title of the University of Aberdeen. The Colleges were: (1) the University and King's College, founded by Bishop Elphinstone, under authority of a Papal Bull obtained at the instance of James IV.; and (2) Marischal College and University of Aberdeen, founded in 1593, by George Keith, Earl Marischal, by a charter ratified by Act of Parliament. Before 1860 degrees were granted by both Universities, and therefore the two Universities are cited separately in the Medical Act. The University now possesses the powers, privileges, and properties of the two Universities.

The Faculty of Medicine includes the professorships of institutes of medicine, practice of medicine, chemistry, anatomy, surgery, materia medica, midwifery, medical logic and jurisprudence, and botany. The professor of natural history is a member of the Faculty of Medicine and the Faculty of Arts (ordinance No. 16). There are assistants to the professors of anatomy, chemistry, materia medica, and medical jurisprudence appointed yearly by the respective professors, with the approval and control of the University Court. Each of the first two receives a salary of £100, and the third and fourth a salary of £25, voted by Parliament.

The Universities of Scotland grant the degrees of Bachelor and Doctor of Medicine and Master in Surgery, M.B., M.D., and C.M.

The following table gives the number of medical degrees conferred during the years 1865-69 inclusive :—

| | Edinburgh | | | | | Glasgow | | | | Aberdeen | | | | | St. Andrew's |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | M.D. Old regulations | M.B. | M.B. and C.M. | M.D. New regulations | Totals | M.D. | M.B. | C.M. | Totals | M.D. | M.D. and C.M. | M.B. and C.M. | M.B. | Totals | M.D. |
| 1865 | 46 | 4 | 17 | — | 67 | 29 | 10 | 20 | 59 | 9 | 11 | 33 | 2 | 55 | 6 |
| 1866 | 22 | 3 | 39 | 1 | 65 | 20 | 25 | 33 | 78 | 15 | — | 31 | 5 | 51 | 10 |
| 1867 | 19 | 7 | 61 | 5 | 92 | 13 | 40 | 33 | 86 | 14 | 5 | 32 | 3 | 54 | 9 |
| 1868 | 11 | 9 | 47 | 11 | 78 | 13 | 39 | 37 | 89 | 2 | — | 23 | 5 | 30 | 9 |
| 1869 | 5 | 5 | 39 | 25 | 74 | 9 | 38 | 40 | 87 | 7 | — | 23 | 7 | 37 | 10 |
| Totals | 103 | 28 | 203 | 42 | 376 | 84 | 152 | 163 | 399 | 47 | 16 | 142 | 22 | 227 | 44 |

The following table gives the salaries of the medical professors (*exclusive of class fees*) :—

| Chairs | Edinburgh University.* | | | | Glasgow University.† | | | |
|---|---|---|---|---|---|---|---|---|
| | Salaries | | Assistants | Allowances for Class Expenses | Salaries | | Assistants | Expenses |
| | £ s. d. | | £ | £ | £ s. d. | | £ | £ |
| Botany | 200 0 0 | | — | — | 230 0 0 | | — | — |
| Physiology | 150 0 0 | | — | — | 150 0 0 | | — | — |
| Practice of Physic | 100 0 0 | | — | — | 270 0 0 | | — | — |
| Anatomy | — | | — | 200 | 250 0 0 | | — | 200 |
| Chemistry | 200 0 0 | | 200 | 100 | 200 0 0 | | 200 | 70 |
| Midwifery | 100 0 0 | | — | — | 100 0 0 | | — | — |
| Natural History | 195 15 | $2\frac{2}{3}$ | — | — | 210 0 0 | | — | — |
| Materia Medica | 100 0 0 | | 25 | 50 | 100 0 0 | | 25 | 50 |
| Clinical Surgery | 100 0 0 | | — | — | 113 9 8 | | — | — |
| Medical Jurisprudence | 100 0 0 | | 25 | 35 | 100 0 0 | | 25 | 35 |
| Surgery | 100 0 0 | | — | — | 100 0 0 | | — | — |
| General Pathology | 100 0 0 | | — | — | — | | — | — |
| Clinical Medicine | — | | — | — | 113 9 8 | | — | — |

The following table will give at least an approximately correct idea of the relative numbers of registered students and members of the University Councils :—

| University | Registered Students | | Members of Council Total | Medical Graduates, &c. Members of Council |
|---|---|---|---|---|
| | Total | Medical | | |
| St. Andrew's | (1876) 1,528 | — | 1,540 | 1,047 |
| Edinburgh | (1876) 3,786 | 910 | 3,786 | 1,560 |
| Glasgow | (1877–78) 2,018 | 492 | 3,033 | 1,062 |
| Aberdeen | — | — | 2,520 | 851 |

* At Edinburgh annual grants are also made for Assistants and Class Expenses—in 1874-75 to the amount of £958.

† At Glasgow an official residence and some allowance for taxes, lighting, and house repairs, amounting to about £18, are attached to the Professorships of Medicine and Anatomy.

At Aberdeen and Glasgow the number of medical members of the Council is about one-third of the total number; at Edinburgh between one-third and one-half; at St. Andrew's at present two-thirds.

### THE UNIVERSITY OF DUBLIN

was founded by Queen Elizabeth, A.D. 1591. A College was incorporated by charter or letters patent under the style and title of "The College of the Holy and Undivided Trinity, near Dublin, founded by Queen Elizabeth." The government of the University is in the hands of the Provost and Senior Fellows, the Visitors and the Council, subject to the control of Acts of Parliament and Royal Statutes. The Crown is supreme, except when limited by Acts of Parliament. The chief officers of the College are the chancellor, the vice-chancellor, the provost, and senior fellows. The assemblies are the Senate, or Senatus Academicus; the Provost and Senior Fellows, and the Council.

The chancellor is elected by the Senate from a list of three names proposed by the provost and senior fellows. If the Senate decline or omit to elect, the nomination of the chancellor is reserved to the Crown. The vice-chancellor is appointed by the chancellor.

The provost is the resident head of Trinity College. He is appointed by the Crown. The provost and senior fellows are the supreme governing assembly. They are superior to the Council, which is united with them in certain functions. Nominations to professorships, vested in the Council, require the approval of the provost and senior fellows, and no new professorship can be created by the provost and senior fellows without the consent of the Council. The Council consists of the provost (or, in his absence, the vice-provost) and sixteen members, divided into four groups of four members, variously elected. The Senate consists of the chancellor, vice-chancellor (or pro-vice-chancellor), and doctors and masters whose names are on the books of the College. The Senate is the popular assembly. The Caput of the Senate consists of the chancellor, vice-chancellor (or pro-vice-chancellor), the provost (or vice-provost), and the senior master non-regent, who is elected by the Senate.

The University of Dublin confers the degrees of Bachelor in Medicine, Doctor in Medicine, Bachelor in Surgery, and Master in Surgery, and Master in Obstetric Science; and grants Licenses in

Medicine, Surgery, and Obstetric Science. The Calendar gives the degrees in medicine conferred since 1800. Up to June, 1877, the doctors of medicine number 335 (33 being *honoris causâ* and 2 *ad eundem*); the diplomates in state medicine (1871 to 1876), 11; masters in obstetric science (all in 1877), 3; masters in surgery (1861 to 1877), 215; bachelors in surgery (1874, '75, '76, and 77), 31; bachelors in medicine, 1,088. The licentiates in medicine (1820 to 1877) are 40, and the licentiates in surgery (1852 to 1877) 34.

The Parliamentary Return obtained by Sir John Gray, in 1870, for 1865–69, gives the following numbers:—

| | 1865 | 1866 | 1867 | 1868 | 1869 | Total. |
|---|---|---|---|---|---|---|
| M.D. | 11 | 6 | 12 | 7 | 4 | 40 |
| M.C. | 11 | 14 | 12 | 18 | 19 | 74 |
| M.B. | 19 | 24 | 34 | 35 | 41 | 153 |
| L.M. | 8 | 3 | 3 | 3 | 2 | 19 |
| L.S. | 2 | 3 | — | 2 | — | 7 |
| Total, | 51 | 50 | 61 | 65 | 66 | 293 |

The total number of University electors in 1878 was 3,435.

The medical income of the University for five years ending 1872 was £4,512—a yearly average of £902 8s.

The following professorships in natural and medical science exist in the University:—

| Professorships. | Salary (exclusive of fees, if any). £ | s. | d. |
|---|---|---|---|
| Natural and Experimental Philosophy - | 200 | 0 | 0 |
| Chemistry - - - - | 400 | 0 | 0 |
| Comparative Anatomy - - - | 100 | 0 | 0 |
| Zoology - - - - | 200 | 0 | 0 |
| Botany - - - - | 200 | 0 | 0 |
| Regius Professorship of Physic - - | 192 | 6 | 2 |
| ,, ,, Surgery - | 150 | 0 | 0 |
| University Anatomist - - - | Students' fees. | | |

"The School of Physic in Ireland," is a medical school connected with Trinity College and the College of Physicians, being formed by an amalgamation of the separate schools formerly attached to those institutions. It is constituted by the statutes of 40 Geo. III., cap. 84, and 30 Vict., cap. 9. The school is governed jointly by the

provost and senior fellows of Trinity College, and by the president and fellows of the College of Physicians. The teaching staff is thus composed—

*Appointed by Trinity College.*

1. The Professor of Anatomy and Surgery.
2. „ Chemistry.
3. „ Botany.
4. „ Surgery.
5. The University Anatomist.
6. The Professor of Comparative Anatomy.
7. The University Lecturer on Operative Surgery.

There are four Demonstrators.

*Appointed by the College of Physicians.*

1. King's Professorship of Institutes of Medicine.
2. „ „ Practice of Medicine.
3. „ „ Materia Medica and Pharmacy.
4. „ „ Midwifery.
5. Professorship of Medical Jurisprudence.

THE QUEEN'S UNIVERSITY IN IRELAND

was founded and incorporated by Royal Charter, dated 3rd September, 1850. Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway, were made Colleges of the University, and to the University was given full power to grant degrees in arts, medicine, and law to the persons who had completed, in one or other of the Colleges, the prescribed course of education. A supplementary charter enlarged the powers of the chancellor and Senate. On the 14th September, 1864, the charters were revoked, and a new charter granted reconstituting the University. The Corporation consists of a chancellor, senators, secretary, professors, graduates, and students. The chancellor is appointed by the Crown. The senators are twenty-four in number, six being appointed by Convocation. The Queen's Colleges are made Colleges of the University, and the chancellor, senators, secretary, professors, and registered graduates of the University are appointed the Convocation of the University. Graduates of two years' standing are entitled to register on payment of the fees. Senators hold office for three years, or during the will and pleasure of the Crown. The Senate

is the governing body. Convocation can deliberate. The University has its seat, holds its meetings, and confers its degrees in the city of Dublin. All fees are paid to a general fee fund, for the payment of the expenses of the University, under the directions and regulations of the Commissioners of the Treasury, to whom the accounts of income and expenditure must be submitted once a year for examination and audit.

To obtain a degree in the University it is necessary to enter one of the three Queen's Colleges, to pass the entrance examination, and pursue a fixed course of study. Those students who pass the entrance examination are placed on the roll of the University as matriculated students. The matriculation examinations are of unequal value at the three Colleges. For a degree in medicine two medical courses, and also modern languages and natural philosophy, must be studied in one or other of the University Colleges; the remaining period of medical education may be pursued elsewhere.

The medical qualifications granted by the University are the Degrees of Doctor of Medicine and Master in Surgery, and the Diploma in Midwifery—M.D., M.Ch., and Dip. Mid. Since the University was opened to the end of 1877 the number of medical degrees of each kind conferred was—M.D., 822; M.Ch. (from 1865), 426; diploma in midwifery (from 1872), 185; Total, 1,453. During the five years 1873, '74, '75, '76, '77, the following were the numbers of each qualification granted:—

| | M.D. | M.Ch. | Dip. Mid. | Total. |
|---|---|---|---|---|
| 1873, | 44 | 40 | 28 | 112 |
| 1874, | 44 | 31 | 31 | 106 |
| 1875, | 46 | 39 | 32 | 117 |
| 1876, | 53 | 47 | 27 | 127 |
| 1877, | 44 | 35 | 25 | 104 |
| Total, | 231 | 192 | 143 | 566 |

The medical income of the University for five years ending in 1872 was £2,125—a yearly average of £425.

The registrable diplomas, qualifications, and degrees giving the right to practise one or more branches of the medical profession, conferred by the nineteen corporations which preside over the destinies of medical practitioners, number fifty-six. The following table exhibits in one view the qualifications, their alphabetical abbreviations, and the fees payable for each qualification. The appended

letters (*Ex.* and *El.*) signify by examination and by election respectively:—

*Royal College of Physicians, London.*

| Qualification. | Abbreviation. | Fees. |
|---|---|---|
| Licence, *Ex.* | L.R.C.P. | £15 15s. |
| Membership, *Ex.* | M.R.C.P. | £31 10s. |
| Fellowship, *El.* | F.R.C.P. | £31 10s. and stamp duty. |

*Royal College of Physicians, Edinburgh.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.R.C.P. Edin. | £15 15s. |
| Membership, *El.* | M.R.C.P. Edin. | £21 0s. to Licentiates before 1876, £15 15s. after. |
| Fellowship, *El.* | F.R.C.P. Edin. | £31 10s. and stamp duty. |

*King and Queen's College of Physicians in Ireland.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.K.Q.C.P.I. | £15 15s. } £16 16s. for the two if taken |
| Licence in Midwifery, *Ex.* | L.M.K.Q.C.P.I. | £3 3s. } within a month. |
| Fellowship, *El.* | F.K.Q.C.P.I. | £30 0s. to Graduates in Arts, Oxf., Camb., or Dub.; £50 0s. to others. Stamp duty extra to both. |

*Royal College of Surgeons of England.*

| | | |
|---|---|---|
| Membership, *Ex.* | M.R.C.S. Eng. | £5 5s. } £22. £16 15s. } |
| Fellowship, both *Ex.* & *El.* | F.R.C.S. Eng. | £10 10s. to Members, } and stamp £31 10s. to others, } duty. |
| Licence in Midwifery, *Ex.* | L.M.R.C.S. Eng. | £3 3s. to candidates with diplomas. £10 10s. to others. |

*Royal College of Surgeons of Edinburgh.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.R.C.S. Edin. | £15 15s. |
| Fellowship, *El.* | F.R.C.S. Edin. | £25. |

*Faculty of Physicians and Surgeons of Glasgow.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.F.P.S.G. | £15 15s. |
| Fellowship, *El.* | F.F.P.S.G. | £50 0s. to resident Fellows, subject to deduction of price of diploma from Faculty. £25 0s. to non-residents, with same deduction if a Licentiate. |

*Royal College of Surgeons of Ireland.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.R.C.S.I. | £21 |
| Licence in Midwifery, *Ex.* | L.M.R.C.S.I. | £1 6s. if taken within a month; £2 2s. if not. |
| Fellowship, *Ex.* | F.R.C.S I. | £21 0s. to non-resident Licentiate. £36 15s. to non-resident registered Pupil. £31 10s. to a resident Licentiate. £47 5s. to a resident registered Pupil. |

*Apothecaries' Hall, Blackfriars.*

| Qualification. | Abbreviation. | Fees. |
|---|---|---|
| Licence, *Ex.* | L.S.A. | £6 6s. |

*Apothecaries' Hall, Dublin.*

| | | |
|---|---|---|
| Licence, *Ex.* | L.A.H.I. | 10 shillings. |

*Royal College of Physicians and Royal College of Surgeons, Edinburgh.*

| | | |
|---|---|---|
| Double Qualification, *Ex.* | L.R.C.P. Edin. / L.R.C.S. Edin. | £21. |

*Royal College of Physicians, Edinburgh, and Faculty of Physicians and Surgeons of Glasgow.*

| | | |
|---|---|---|
| Double Qualification, *Ex.* | L.R.C.P. Edin. / L.F.P.S.G. | £21. |

*University of London.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. Lond. | £17, including £2 for Matriculation. |
| Bachelor of Surgery, *Ex.* | B.S. Lond. | £5. Candidates must be M.B. Lond. |
| Master in Surgery, *Ex.* | M.S. Lond. | £5. Candidates must be B.S. Lond. |
| Doctor of Medicine, *Ex.* | M.D. Lond. | £5. Candidates must be M.B. Lond. |

*University of Oxford.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. or B.M. Oxon. | £17. |
| Doctor of Medicine | M.D. Oxon. | £40. |

*University of Cambridge.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. Cantab. | £8 to University (£2 if B.A.), £1 1s. to the Prælector, and College fees (ranging from £4 to £16). |
| Doctor of Medicine, *Ex.* | M.D. Cantab. | £10 University, and College fees (ranging from £6 to £17 10s.) |
| Master in Surgery, *Ex.* | M.C. Cantab. | £18 to University (£12 to B.A. or M.B., and only £1 to M.A. or M.B.). |

*University of Durham.*

| | | |
|---|---|---|
| Licence in Surgery, *Ex.* | Lic. Surg. Durh. | £3. |
| Licence in Medicine, *Ex.* | Lic. Med. Durh. | £3. |
| Bachelor of Medicine, *Ex.* | M.B. Durh. | £6. |
| Master in Surgery, *Ex.* | M.C. Durh. | £3. |
| Doctor of Medicine | M.D. Durh. | £6. |
| „ *Ex.* | „ | £52 10s. to practitioners of 15 years' standing without residence. |

*University of Edinburgh.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. Edin. | £15 15s. |
| Master in Surgery, *Ex.* | C.M. Edin. | £5 5s. Candidates must be M.B. |
| Doctor of Medicine, *Thesis* | M.D. Edin. | £5 5s. and £10 stamp duty. |

*University of Aberdeen.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. Aberd. | £15 15s. |
| Master in Surgery, *Ex.* | C.M. Aberd. | £5 5s. Candidates must be M.B. |
| Doctor of Medicine | M.D. Aberd. | £5 5s. and stamp duty. |

*University of Glasgow.*

| Qualification. | Abbreviation. | Fees. |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. Glasg. | £15 15s. |
| Master in Surgery, *Ex.* | C.M. Glasg. | £5 5s. Candidates must be M.B. |
| Doctor of Medicine, *Thesis* | M.D. Glasg. | £5 5s. and £10 3s. stamp duty. |

*University of St. Andrew's.*

| | | |
|---|---|---|
| Bachelor of Medicine, *Ex.* | M.B. St. And. | £15 15s. |
| Master in Surgery, *Ex.* | C.M. St. And. | £5 5s. Candidates must be M.B. |
| Doctor of Medicine, *Ex.* | M.D. St. And. | £5 5s. and stamp duty. |

*University of Dublin (Trinity College).*

| | | |
|---|---|---|
| Bachelor in Medicine, *Ex.* | M.B. T.C.D. | £16. |
| Doctor in Medicine, *Ex.* | M.D. T.C.D. | £13. |
| Bachelor in Surgery, *Ex.* | B.S. T.C.D. | £10. |
| Master in Surgery, *Ex.* | C.M. T.C.D. | £11. |
| Licentiate in Medicine, *Ex.* | Lic. Med. T.C.D. | £10. |
| Licentiate in Surgery, *Ex.* | Lic. Surg. T.C.D. | £10. |

*Also not registrable qualifications.*

| | | |
|---|---|---|
| Master in Obstetric Science, *Ex.* | M. Obs. Sci. | £5. |
| Licentiate in Obstetric Science, *Ex.* | Lic. Obs. Sci. | £5. |

*Queen's University.*

| | | |
|---|---|---|
| Doctor in Medicine, *Ex.* | M.D. Qu. Univ. Irel. | £5. |
| Master in Surgery, *Ex.* | M.Ch. Qu. Univ. Irel. | £5. |
| Licence in Midwifery, *Ex.* | L.M. Qu. Univ. Irel. | £2. |

*Qualifications in Public Health and State Medicine.*

University of Oxford, open to Bachelors of Medicine of the University, £15.
„ of Cambridge, open to any registered practitioner, S. Sc. Cert. Camb., £8 8s.
„ of London, open to Bachelors of Medicine of the University, £5.
„ of Dublin, open to Doctors of Medicine of Dublin, Oxford, and Cambridge.
„ of Edinburgh, Degrees of B. Sc. and D. Sc. in Public Health; B. Sc., £10 10s.; D. Sc., £5 5s.
„ of Glasgow, open to registered practitioners on certain conditions, £8 8s.

The bewildering multiplicity of qualifications will be simplified for the apprehension of the unmedical reader by classification. They are divisible into four sets.

1. *Ordinary qualifications to practise medicine or surgery, or medicine and surgery*, conferred by the Licensing Corporations on all candidates who give evidence of the possession of the minimum amount of medical knowledge which it is deemed compatible with the public interest and safety to demand. Qualifications of this kind are granted by the Colleges of Physicians and Surgeons, the

Apothecaries' Halls, and some of the Universities. The only single complete qualification conferred by a single Corporation in the United Kingdom—that is to say, a qualification which entitles the holder to practise all the branches of the profession—medicine, surgery, and midwifery—in any part of Her Majesty's dominions, and to compound or dispense medicines for patients under his own care, and which is recognised by the Local Government Board as a qualification in medicine and surgery—is the Licence of the Royal College of Physicians of London.

(*a.*) Qualifications to practise medicine only are the Licences of the Colleges of Physicians of Edinburgh and Dublin, and the Societies of Apothecaries. Licences to practise medicine are still granted also by the Universities of Durham and Dublin. It would be well if these Universities imitated the good example of the Universities of Oxford and Cambridge, and abandoned their licences.

(*b.*) *Qualifications to practise surgery only* are the Membership of the College of Surgeons of England, and the Licences of the Colleges of Edinburgh and Ireland, the Faculty of Physicians and Surgeons of Glasgow, and the Universities of Durham and Dublin.

The class of practitioners called general practitioners—the family doctors—who form the back-bone of the medical profession, ought to possess, and often do possess, both a qualification to practise medicine and a qualification to practise surgery. Unfortunately, however, a large proportion of the general practitioners in the United Kingdom are practising with only one diploma—surgical in some cases, medical in others. In England a favourite combination of diplomas is the Membership of the College of Surgeons, with the Licence of the Apothecaries' Society; for the Licence of the College of Physicians, which is considered a more dignified diploma, has not been long in existence on its present basis. The Licence of the Apothecaries' Society is cheaper than any medical licence in England and Scotland, and the examinations have had the reputation of being less severe—two determining elements of great potency with medical students. How great may be judged by the currents which set in some years ago from England and Ireland towards Scotland, where diplomas were cheap, and regarded as easily obtainable. A few years back

the cost of the double qualification conferred by the College of Physicians and the College of Surgeons of Edinburgh in conjunction was £16, whilst a double qualification in England could not be had for less than £28 6s., and might cost £37 15s.; and in Ireland connexion with the Colleges of Physicians and Surgeons cost nearly £37—so that a medical student from England or Ireland could obtain a highly respectable double qualification, dub himself "doctor," and lionise Edinburgh for the same money which he would have paid if he had stayed in his own country. At the present time the double qualification at Edinburgh costs £21. In Scotland a common combination of diplomas is the medical Licence of the College of Physicians, with the surgical Licence either of the College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. In 1859—the year after the passing of the Medical Act—each of the Scotch Surgical Colleges made arrangements with the Edinburgh College of Physicians to confer a double qualification in medicine and surgery which should entitle its holder to practise all branches of the profession in any part of Her Majesty's dominions. These qualifications are often taken by English and Irish as well as Scotch students, as the fees are moderate, the journey agreeable, the locality interesting and attractive, and much trouble is saved to the candidate by having to present himself at one board of examiners only. In Ireland the Licence of the College of Surgeons, which has deservedly enjoyed a high repute, can be supplemented by the Licence of the College of Physicians, or the Licence of the Apothecaries' Society. Students who have matriculated in medicine at Trinity College, Dublin, can obtain the Licences in Medicine and Surgery granted by the University of Dublin. Comparatively few take the University Licences. The number of those who obtain the Licence of the College of Surgeons of Ireland is about equal to the number of those who take the Licence of the College of Physicians, added to those who pass at the Apothecaries' Hall. It is a curious circumstance that the Apothecaries' Hall is not patronised to anything like the same extent as the sister society in England, although its Licence can be obtained for 10 shillings.

2. *The second set of qualifications and diplomas comprises the higher qualifications of the Colleges of Physicians and Colleges of Surgeons.* These are the Fellowship and Membership of the College of Physicians of London, the Fellowship and Membership of

the College of Physicians of Edinburgh, and the Fellowships of the King and Queen's College of Physicians in Ireland, the College of Surgeons of England, the College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. It is to be regretted that parallel qualifications are not of equal professional value—that is, that they do not necessarily indicate an equal amount of professional knowledge and a corresponding amount of professional study. It is to be regretted that all the Fellowships of the Colleges are not conferred after an examination of a high order. As it is, and as may be gathered from the preceding account of the Corporations, the Fellowship and Membership of the College of Physicians of Edinburgh, the Fellowship of the College of Physicians in Ireland, the Fellowship of the College of Surgeons of Edinburgh, and the Fellowship of the Faculty of Physicians and Surgeons of Glasgow are bestowed by ballot, whilst the Fellowships of the English Colleges of Physicians and Surgeons and the Irish College of Surgeons can only be obtained after an extended course of study, and after examinations necessitating higher acquirements both in general and professional knowledge. At the College of Physicians of London the Fellowship is conferred by election, but the antecedent grade of Member is awarded after examination. It is proper to add that the Fellowship of the College of Surgeons of England is conferred, to a limited extent only, without examination on practitioners of distinction. As proofs of the disadvantages resulting from Colleges bestowing Fellowships without examination, we may adduce two consequences:—An elected Fellow of the College of Surgeons of Edinburgh and an examined Fellow of the College of Surgeons of England may each write after their names F.R.C.S.E., and no one would be able to tell whether the qualification had been conferred after a stiff examination in London, or by election in Edinburgh. Secondly, the repute of a Fellowship is greatly lowered by admissions without examination other than that for the lower qualifications.

3. *The third set of Diplomas or qualifications to practise comprises the University Degrees, Doctor of Medicine, Bachelor of or in Medicine, Bachelor of or in Surgery, and Master of or in Surgery.*—The estimation in which the medical degrees of the ten Universities in the United Kingdom are held varies greatly both in and out of the profession. Public and professional estimation are two different things. With the public in general an M.D. is an M.D., no matter

where the degree has been obtained. With the profession the estimation of the degrees of the Universities is directly proportionate to the severity, or the reputed severity, of the examinations to be undergone to obtain them. In the profession few would dispute the pre-eminence of the medical degrees of the University of London; and a few years ago not many would have hesitated to select a northern University to take with shame the lowest place. The ancient University to which allusion is made gained for itself (whether justly or unjustly it is not our office to decide) a reputation for granting its degree of Doctor of Medicine on conveniently easy terms, and a strong current of general practitioners and others, desirous of writing M.D. after their names and hearing the legitimate sound of Doctor before them, set in a northerly direction. The current flows no longer, for it has been arrested by the adoption of a recommendation of the Scotch University Commission that a regulation should be passed requiring from candidates for the medical degrees of the University of St. Andrew's a previous residence of two years; but the degree of M.D. may be conferred every year on ten registered medical practitioners of sufficient experience and above the age of 40 years, after examination and payment of a fee of fifty guineas, inclusive of stamp duty. It is again to be regretted that the possession of degrees in medicine and surgery from the Universities of England, Scotland, and Ireland does not invariably imply the accompanying possession of higher professional attainments than those required to secure from one of the Colleges of Physicians and Surgeons an ordinary licence to practise medicine and surgery. In England there can be little doubt that the amount of medical knowledge demanded at the Universities for the medical and surgical degrees is essentially greater than that demanded for the licence of the College of Physicians, the licence of the Apothecaries' Society, and the membership of the College of Surgeons respectively. A similar remark is applicable to Ireland, but in a minor degree. In Scotland the case is different. Scotch University degrees are as plentiful as blackberries; and it is open to grave doubt whether they are a whit superior to the licences of the Colleges. A professor at one of the Universities may aver that they stand considerably above those of the Colleges, but other opinion can be quoted to the contrary. English testimony might be viewed with suspicion. A passage, therefore, is here quoted from a minute published by the Royal College of Physicians of Edinburgh,

in 1859, and republished in 1870:—"The partiality for graduates is wholly unintelligible in Scotland, where it is well known that licentiates of the Scottish Medical Corporations have always been qualified for practice by an amount of study wider in range than that of several of the Scottish Universities, and by examinations, always including medicine, which have had the reputation of being quite as thorough as those of the Universities." The relations between the Medical Corporations and the Universities in Scotland are altogether different from the relations between the medical Corporations and the Universities in England. In Scotland the medical Corporations are the rivals of the Universities. Both are engaged in bestowing qualifications to practise on those who intend to become general practitioners. A few men of the higher stamp, including some from England, resort to Scotland for medical degrees; but, as a rule, the Universities educate and license general practitioners. The high-sounding title of master in surgery should imply a wider range and longer course of study, and severer examinations, than those required for an ordinary surgical licence. That it does not do so in Scotland no better authority can be adduced than that of one of the Universities in question. The "Calendar of the University of Edinburgh" (1877, p. 173), observes: "Before the passing of the Medical Act of 1858, the degree of doctor of medicine granted by the Universities of Scotland (as the possessor underwent a complete education and examination in all departments of physic and surgery) qualified the graduate to practise every branch of the medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights to practise over the whole of Her Majesty's dominions. But, according to the hitherto accepted reading of a dubious clause in the Act, no one can practise medicine and surgery without possessing two distinct diplomas, one for medicine and another for surgery. The Universities were thus compelled, in justice to their graduates, to give them the additional title of master in surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications and to permit registration as regularly qualified practitioners in the whole field of their professional education." The Scottish Universities, therefore, have been engaged, confessedly, in lowering the professional value of qualifications which should universally occupy higher ground than the ordinary licences to practise. It is right, however, to add that, in the opinion of professors connected with the Univer-

sities, the examinations at the Universities, and consequently the degrees conferred by them are far in advance of the examinations and licences of the Colleges of Physicians and Surgeons in Scotland and elsewhere. On this ground, the Universities of Scotland base their opposition to being compelled to join in a conjoint scheme. The argument is that combination would lower instead of raising the qualifications which they now confer.

4. *A fourth and last group of qualifications and diplomas are those which are given for special branches of practice, such as the Licences in Midwifery and the Licences in Dental Surgery.* The Corporations which confer separate diplomas in midwifery are the College of Surgeons of England, the College of Surgeons in Ireland, the King and Queen's College of Physicians in Ireland, the University of Dublin, and the Queen's University. The licence in midwifery of the College of Surgeons of England is the only midwifery qualification which is entitled to be registered separately. The midwifery diplomas of the other Corporations are conferred only on those who have already obtained qualifications to practise either medicine or surgery. It is generally admitted that the separate registration of the licence in midwifery of the English College of Surgeons is a mistake and liable to engender mischief, that an examination in midwifery should form an integral part of the necessary examinations for a qualification to practise, and that no one ought to have his name inserted in the Medical Register who has not passed in all the branches of professional education. Medicine, surgery, and midwifery are the three branches under which all professional knowledge is grouped, and when a complete qualification becomes a necessary condition of registration, the midwifery examinations of the Corporations will either become absorbed in the main examination or be polished into qualifications of a higher character, evidencing superior attainments in obstetric science.

Licences in dental surgery are granted by the Colleges of Surgeons. These licences are not admissible to the Medical Register, but can be entered in the Dental Register, recently established by the enactment of Sir John Lubbock's Dental Practitioners Bill. On this subject more will be said hereafter.

We come now to the different classes of practitioners of whom the medical profession is composed, and who are engaged in the different divisions of medical practice. The recognised classes of practitioners are five in number—physicians, surgeons, obstetricians,

general practitioners, and specialists. Obstetricians may be classed with specialists, but it is preferable to place them in a distinct group.

*Physicians*, or "pure" physicians, or consulting physicians, practise medicine only. They are usually fellows or members of a College of Physicians, and doctors of medicine of one of the Universities. In all cases they give advice only, writing prescriptions for the medicine required. In the time of Queen Anne, the distinctive features of the pure physician were the guinea fee and the gold head walking-stick. The stick has disappeared, and been replaced by the stethoscope (often binaural), and the fee has been modified. It has recently become the custom to charge two guineas for the first visit of a patient to the physician, partly because the charges for everything else have risen of late years, and partly because the first visit of a patient makes a much larger demand on the time and trouble of the physician, who has to take the family and personal history of the patient, and carefully and minutely investigate and record the state of the bodily organs. A guinea is the usual fee for each subsequent consultation. Many patients only come once for an opinion and prescription, and afterwards return to the family doctor, or go on without further advice. The fees of physicians called to see patients at their own homes vary with the distance. The general rule is that the number of guineas composing the fee should be equal to two-thirds of the distance of the patient's residence in miles from the residence of the physician—thus, to visit a patient 3 miles off would be 2 guineas; 6 miles, 4 guineas; 50 miles, 33 guineas; 100 miles, 66 guineas; 150 miles, 100 guineas; and so on. In London the "pure" physicians, who may number about 120 or more, generally hold or have held appointments as physicians to the hospitals of the metropolis. Out of London pure physicians are not numerous. In the provinces and in the sister divisions of the kingdom the practice of physicians begins to assimilate to that of the general practitioner, and even in London a physician occasionally assumes either surgical duties or the functions of a family doctor. Scarcely any of the medical men in Edinburgh are exclusively occupied with either medicine or surgery. Perhaps about half-a-dozen connected with the two Colleges of Physicians and Surgeons are pure physicians or pure surgeons. It has been remarked that if each of these Colleges consisted of "pures" each would consist of one or two fellows only. In Scotland an intermediate class between general practitioners and physicians has long

existed. This class practises physic, to which some add minor operations of surgery, and a few add midwifery, but none practise pharmacy. The fees are also intermediate. Some—like the celebrated Abercrombie, who was for 18 years a practitioner of this class—become consulting physicians. The late Dr. Begbie began professional life as a family doctor.

*Surgeons*, "pure surgeons," or "consulting surgeons," are those who devote themselves exclusively to surgery. They are generally fellows of one of the Colleges of Surgeons, and a few are masters in surgery of a University. In regard to fees, the only difference between them and the physicians is, that an addition must be made to the usual consulting fee for the performance of an operation. A surgeon called to operate on a case in the country would name his own fee, but he would be entitled by professional custom to claim the usual amount for distance, plus the fee for operation. Out of London there are very few pure surgeons. The provincial surgeons either combine midwifery with their surgery or act as family doctors.

*Obstetricians*, or obstetric physicians or surgeons, devote themselves to the diseases of women and children. Those only are entitled to the name physicians who do not perform operations, but act mainly in giving advice to ladies. The few who take up and cultivate especially the operative part of obstetric practice are properly termed surgeons. There is, however, in general no clear line of demarcation, both faculties being combined in varying proportions.

*Specialists* are either physicians or surgeons, or general practitioners, who devote themselves largely, if not exclusively, to some special branch of practice. Some confine their attention to mental diseases or lunacy; some to diseases of the eye—ophthalmic surgeons or oculists; some to diseases of the ear—aural surgeons or aurists; some to diseases of the throat—throat doctors, or throat physicians (more properly surgeons, their art being chiefly manipulative); some to diseases of the skin—skin doctors, either surgeons or physicians (for the skin is neutral ground); and some to deformities—orthopædic surgeons. But, besides these more pronounced specialists, the majority of physicians and surgeons have been obliged by the demands of the public to associate their names with some particular organ or class of diseases. Every consulting physician or surgeon must be considered good for some particular thing. He must

"take up" some organ—the heart, the lungs, the stomach, the liver, the kidneys, the bladder, the rectum; and either he must write a book on the subject (a pamphlet well advertised suffices), or he must belong to some institution specially devoted to a particular organ (a special department of a general hospital is not nearly so beneficial); or he must, somehow or other, by recommendation of his professional brethren, or by some chance hit, acquire a repute for some class of diseases. Only a few of the leading men can safely disregard this inflexible requirement of the public, and treat the human body in its native integrity. It is true that at his hospital the pure physician sees and treats all kinds of diseases, and that the surgeon performs any operation on any part of the body (the eye being generally excepted), and it is true that some special institutions are superfluous. The inexorable public will not believe in a man who is good all round. With the public a physician who can treat the liver is not good for the stomach, certainly not for the kidneys. The heart has no connexion with the lungs, and all the organs of the body are totally independent of one another. A patient will come up from the country, and consult four or five separate practitioners—one for his general state, one for his ear, another for his chest, and another for his throat. A second patient, who comes to consult a surgeon about his eye, will ask him to recommend some one else for his skin, although the same surgeon might happen to be equally good, or even better, for the skin than for the eye. The force of subdivision of the human body can no further go.

*General practitioners* form the bulk of the medical profession. They are the rank and file of the medical army, of which physicians, and surgeons, and obstetricians, and the more select of the specialists, are the generals and officers. The majority, as previously stated, hold both a medical and a surgical qualification, being members of the College of Surgeons of England and licentiates of a College of Physicians or Apothecaries' Hall. Many are connected with the Scottish and Irish Corporations. A considerable proportion are graduates of Scotch and Irish Universities, comparatively few being graduates of English Universities. As a rule, the *élite* of the English University graduates settle down into pure and special practice, becoming physicians and surgeons to metropolitan and provincial hospitals, leaders of practice in town and country. Even among general practitioners there are several

grades. As in the animal kingdom, the classes of the medical kingdom pass almost insensibly into each other, and there are intermediate individuals partaking of the characters of the two classes which they unite.

The class of general practitioners has been divided into the dispensing and non-dispensing orders:—I. The *dispensing order*, which is distinguished by the fact of supplying medicines to patients, may be again sub-divided into two chief groups or sub-orders—(*a*). The *surgeon-chemist*, or the red-bottle and blue-bottle practitioners, who combine the work of medical men with the retail business of a chemist. An open shop is kept, with glass-cases containing tooth brushes, nail brushes, patent medicines, seidlitz powders, Eno's fruit salt, soap, scents, delectable lozenges, chest protectors, and feeding bottles. The retail trade is the great source of emolument, and could not be given up without serious damage to the business. (*b*). The *surgeon-apothecary*, with an open surgery and a red lamp. No retail trade is done, but advice and a bottle of physic is given for a moderate sum—a shilling is a common charge in the poorer neighbourhoods. A few in this and the preceding group keep medical dispensaries, and attend patients for a small weekly payment varying from 2d. to 1s. As the scale is ascended the surgery retires more and more into the background, until it reaches the interior of the dwelling, where it is no longer exposed to the vulgar gaze. At last it disappears entirely, and the second sub-order is attained, or—II. The *non-dispensing or consultant order.* Medicine is prescribed, the prescriptions being made up at a chemist's. Patients are seen and visited at a lower fee than that of the regular physician. Half a guinea is often charged. Members of the non-dispensing order are found at fashionable watering-places. They shade off on the one hand into the highest of the dispensing order, and on the other into the regular consulting physician. The charges of "dispensing" general practitioners vary with the condition of the patients. It is the custom at the present day to charge, not for the medicine, but for the advice or for each visit, and to send in simple and comprehensive accounts, stating the amount due for medical attendance, and it is customary to add "particulars given if desired." If he is not satisfied with the charges, any "overwrought patient" can at once obtain the items of his account. In the best regulated surgeries three books are kept. The "visiting list" contains a memorandum of the visits intended

and made each day; the "day-book" contains a record of the visits chargeable and of the medicines, &c., ordered and prescribed; the "ledger," which is made up from the "day-book," contains a full account of the items, with the charges for them. The accounts in the "ledger" are "posted" daily when the practice is large, or at frequent intervals, and are arranged under the names of the patients from whom they are due. The ledger ought to be kept with such regularity that a patient's account can be made up at once if required. Patients' accounts are sent in at variable intervals—sometimes quarterly, sometimes half-yearly, sometimes at Christmas only. Occasionally, and in the country especially, accounts may run on for a longer period; but the longer the period the greater the liability to bad debts. In towns, accounts are often sent in at the end of an attendance; and when the patients are strangers and migratory, ready money is demanded. No profession suffers more from bad debts than the medical profession. General practitioners are the chief victims. Physicians' fees and surgeons' fees are paid generally at the time of the visit. A fee for an operation is paid immediately after its performance, and hence the consulting practitioner is not very frequently deprived of his earnings. General practitioners may always reckon on a considerable proportion or percentage of bad debts in the course of the year. It would be much better if accounts for medical attendance were always paid at the conclusion of each illness, but medical men do not like sending in their accounts earlier than the traditional period for fear of losing the connexion; and patients have acquired the habit of paying their medical attendants after everybody else. If accounts were sent in always at the conclusion of each case, patients would be better able to check the account, and could not easily be "overwrought," whilst medical men would be far less frequently victimised. Nothing evaporates so rapidly as gratitude for professional services; and it was a wise though sadly unsympathetic utterance of a late London physician, "Always take the fee whilst the tear is dropping." No body of men are more liberal in making allowances for the circumstances of patients than medical practitioners. Where there is a suspicion of poverty, fees are adapted to the supposed circumstances of patients, or remitted altogether. Many well-to-do patients take advantage of this known generosity, and endeavour to persuade the physician or surgeon to see them twice for a guinea; and it is a frequent habit, especially with aristocratic patients, to

tender a sovereign without the complementary shilling. Patients who will spend any sums of money on luxuries—on wine, or pictures, or articles of virtu, and in the pursuit of pleasure, grudge the hard-earned fees of their medical attendants, and exhaust their ingenuity in endeavouring to obtain an abatement of customary charges.

It would appear that in Ireland, to a considerable extent in large towns, and customarily in the country, the charges of general practitioners are made exclusively for the medicine supplied. The recognition of the disease and the advice given for its treatment are thrown in with the medicine. On this subject Mr. Ashe, in his admirable Carmichael Prize Essay for 1872, remarks: "In the country and country towns a man's professional remuneration sometimes consists of charges for medicine only, laying him open to the allegation that as every man makes his livelihood by selling the most valuable thing he can offer to the public, the doctor's medicine must be of more value than his advice. This advice-gratis system is the bane of the profession, from the highest to the lowest, and from all points of view. It lowers the estimate formed by the public of the particular individual in his own district. It drives the more highly-educated physician—the gentleman who will not lower his status to the practice of a trade—from the country district into the town, because such a one cannot obtain a sufficient practice in the country against the competition of the shopkeeping practitioner. Such is the preference of the humbler class of patients—the shopkeepers and farmers, who from their numbers make the chief source of practice in a country district—they will not consult a physician, practising as such, so long as they can have a man who only charges for medicines, even though he may charge at such a rate as to make them ultimately pay more than they would have paid to the physician. In consequence of this the larger towns are overstocked with physicians practising as such only, so that a young man, however highly educated, will have no chance of succeeding in practice till gray hairs are growing, for the humbler class of patients in large towns also prefer the dispensing doctor or general practitioner, and the upper classes prefer the older man, however much he may have failed to keep abreast of the medical science of the day, of which they, the patients, know nothing." (See p. 18.)

The privileges of the members of the profession in connexion with the licensing Corporations deserve attentive consideration.

The great mass of the profession is connected with the Colleges. Some medical men have not formed any connexion with any of the Colleges, being satisfied with the degrees or licences which they have obtained from the Universities, or being content to practise with the solitary licence of the Apothecaries' Hall. Of the 22,841 medical men whose names appear in the Register for 1878, probably more than 21,000 hold diplomas granted by the Colleges, for the graduates of the Scotch and Irish Universities do not always exclusively confine themselves to the degrees obtained from those institutions, but unite with them variously some one or more of the diplomas of the Colleges. At all the seven Colleges the superior order of fellows is the body possessing the political power and privileges. To fellows belongs the government, and to fellows alone are the offices at the Colleges open. These facts are equivalent to the statements that not more than nine per cent. of the members of the medical profession have any voice in the control of the affairs of the Colleges, that not more than twelve per cent. of those who hold the diplomas of the College of Surgeons of England have any voice in the control of the affairs of the College of Surgeons, and that not more than nine per cent. of those who hold the diplomas of the College of Physicians of London have any voice in the control of the affairs of the College of Physicians. But when we compare the privileges of the fellows at the different Colleges we find a marked difference, and we are particularly struck with the closeness and exclusiveness of the constitution of the most influential of all the Corporations, the Royal College of Surgeons of England. It will be observed that at all the Colleges, with the exception of the Royal Colleges of Surgeons of England and Ireland, the fellows possess a marked influence over the policy of the executive, and a consultative voice in regard to the proposed changes. At the King's and Queen's Colleges of Physicians, under the ancient charter, there was no Council. The fellows were called together every month to transact the necessary business. At the Royal College of Physicians of Edinburgh there are four ordinary quarterly meetings of fellows on the roll of attendance, and extraordinary meetings may be called by the president, or on a requisition signed by five fellows, a similar rule applying to meetings of fellows and members. At the Faculty of Physicians and Surgeons of Glasgow ordinary meetings of fellows resident in Scotland are held every month. At the Royal College

of Physicians, London, there are four ordinary meetings of fellows, and extraordinary meetings may be called by the president, or on a requisition signed by the four censors or by ten fellows. At the Royal College of Surgeons of Edinburgh general meetings are held. It is true that at the Royal College of Surgeons of Ireland the fellows are not consulted as to making or altering by-laws and ordinances, and that the Council exercises all the powers of the Corporation, but then the whole of the Council retires annually, and thus the fellows can most effectually shape the policy of the College by electing councillors to carry out their behests. At the Royal College of Surgeons of Edinburgh the whole of the Council is elected annually, the president and treasurer being elected by the fellows at the annual meeting, and the president proposing six ordinary fellows as a Council, subject to the approval of a majority of the fellows. At the Royal College of Physicians, Edinburgh, six of the eight councillors, and a seventh—viz., the president, are elected by the fellows at the annual meeting, and the eighth—viz., the vice-president, is nominated by the president, so that the whole of the Council is annually elected. At the Faculty of Physicians and Surgeons of Glasgow, out of the Council of eight, three—viz., the president, visitor, or vice-president, and the treasurer, are elected by the fellows at the annual meeting. The representative of the Faculty in the General Medical Council elected by the fellows is a councillor, and one of the remaining four councillors retires annually, the vacancy being filled up by the fellows—in other words, half the Council is elected annually. At the Royal College of Physicians of London, of the eighteen members of the Council, six—namely, the president, four censors, and treasurer, are annually elected. The four censors and the treasurer are nominated by the Council. Of the twelve remaining members of the Council, four retire annually, and are not eligible for re-election until they have been a year out of office. Four fellows to fill the vacancy are nominated by the Council, but all nominated officers must be elected by a majority of the fellows. At the King and Queen's College of Physicians in Ireland, under the old charter, all the officers were chosen by the fellows, at the annual meeting on St. Luke's day. Thus, by means of general meetings and elections of the whole or greater part of the Council annually, the fellows at six of the seven Colleges are masters of the affairs. At the Royal College of Surgeons of England the fellows have but a feeble voice, and enjoy but a limited control. Each

councillor has an average period of eight years in office, for only three of the twenty-four councillors vacate their seats every year. Meetings of fellows and meetings of fellows and members can only be held if convened by the president. The fellows have no right of assembly or debate in the theatre or the library of the College. It is open, doubtless, to the fellows and members to memorialise or to petition the Council to allow a meeting to be held, for that is a privilege of which Englishmen could not well be deprived. All Englishmen have the right to petition Parliament—*a fortiori*, therefore, the members of the medical profession and those members holding the diplomas of the College must enjoy the privilege of petitioning the Council of the College. Here, however, with this glorious liberty of Britons, the rights of fellows and members terminate. The constitution of the College is severely oligarchical. The 15,800 members not only have no voice whatever in the election of the governing body, but they have no voice whatever in anything that relates to the College. The 1,250 fellows have so far an influence over affairs that in the course of eight years they might change the *personnel* of the Council, but of this number a very large proportion are virtually disfranchised. Country fellows can neither use voting papers nor vote by proxy—they must attend and record their votes in person. Not only have fellows and members no right whatever of meeting for discussion in the hall or council house or library of the College, but when summoned to meet by the president, the fellows and members cannot "discuss or debate any other matter than the particular business or matter in respect of which such meeting was convened." Even here the fellows and members are under still further restraint; for "any fellow or member of the College, who shall interrupt, impede, or interfere with the proceedings of any such meeting, or shall propose any matter for discussion or debate without the leave of the president or other person presiding, shall, upon being required by the president or other person so presiding, immediately withdraw from such meeting, and shall be moreover liable to be restrained and excluded by the Council from attending orations and lectures in the theatre, and from any use or admission to the library and museum, and to be suspended from any and all other privileges which he may have as a fellow and member, or a member of the College, for any such period as the Council may adjudge. If he offend a second time, he is liable to be struck off the roll of fellows

and members" (By-Laws, sec. XIX., 1 and 2). These restrictions, coupled with the length of time for which councillors are as a rule elected, throw the undivided control of affairs into the hands of the Council. Minutes of the meetings used to be suspended in the College, and the secretary now communicates proceedings to the journals; but outside the scanty information thus afforded, fellows have no opportunity of learning how their representatives speak and vote, nor can they give public expression to their views except through the channel of a newspaper. Thus, the fellows collectively are virtually deprived of any real influence in determining the issues of administrative and educational questions. The control which might be exercised at the annual elections, if a larger proportion of councillors retired annually, becomes uncertain, fallacious, and fitfully applied, and is apt to be attended with injustice to individuals. During a period of temporary excitement some may be deprived of their seats, under the possibly erroneous notion that their views are not sufficiently liberal, whilst colleagues more conservative remain undisturbed in office, for the wave of progress which swept the former away subsides before the period of re-election of the latter arrives into a gentle ripple, which promotes the continuance of a perennial repose. But though the fellows and members cannot speak through the Council, the Council wields its great influence in consequence of the large numbers of fellows and members connected with the College. The fellows of all the other Colleges together exceed the fellows of the College of Surgeons of England by less than 200, whilst the members of the College exceed the licentiates of the other Colleges united by about 2,000. These strong facts sufficiently account for the influence of the Council of the College of Surgeons of England over the profession and professional education. It is an influence which cannot be approached by the Council of any other Medical or Surgical Corporation, and is second only (not long ago it might be spoken of as superior) to that of the General Medical Council itself. How greatly might that influence for good be increased if the Council were to promote the removal of the disabilities from both fellows and members, and organise the constituency for the advancement of the interests of the medical profession.

The Societies of Apothecaries are trading companies governed by officers elected by and from the shareholders. "Neither born great" nor "having achieved greatness," they have had medical "greatness

thrust upon them" by reason of the dereliction of Colleges of Physicians in days gone by. If any profit should ever accrue from the performance of the duties of the Apothecaries' Halls in examining and licensing candidates for admission into the medical profession, it would merely be thrown in with the profit from the trade in drugs, and form part of the dividends paid to the shareholders. The connexion of the licentiates of the Apothecaries Halls with the Corporations begins and ends with the licences themselves. No other circumstance than the fact that their licentiates have no corporate privileges would be needed to explain the lack of interest excited by these Societies in the ranks of the profession, whilst the fundamental and irremediable association of the Apothecaries' Societies with the drug trade is inducement enough for the profession to desire their disestablishment as medical authorities.

It has been justly remarked that "after receiving his diploma and paying his large fee for it, the member or licentiate of a medical and surgical Corporation has no corporate functions, he exercises no influence over the affairs of his College, and probably, to the day of his death, never has any official communication from it. He may commit serious offences against professional custom and feeling, and not even have the kindly advantage of a rebuke. Conviction of a serious crime will secure the erasure of his name."—*Lancet*, Dec. 7, 1878.

In regard to the Universities it may be stated that the constitution of each is not a matter of so much importance to the profession either as the constitution of the Colleges, or as the conditions on which each confers its medical degrees. The voice of the medical graduates of Universities is mingled with the voices of graduates in arts, in laws, in divinity, and in science, and in some cases would be altogether overpowered. At Oxford, and Cambridge, and Durham, for instance, the medical graduates are thinly sprinkled amongst the graduates in the other faculties; the proportion rises in the Universities of Dublin and London, some of the Scotch Universities and the Queen's Universities, and it culminates in the University of St. Andrew's, where we find that the medical graduates largely exceed the graduates in the other faculties. In the course of time the unwonted proportion of medical graduates at the University of St. Andrew's will be diminished, for the present medical graduates will pass away, and the operation of the rule that only ten medical practitioners are to receive the M.D. of the

University without qualifying by residence will produce a marked alteration in the numbers of medical graduates. The relative proportion of medical graduates to other graduates in the other Scottish and in the Irish Universities may be roughly regarded as 1 to 2. The high standing of the medical degrees of the University of London gives considerable interest to the discussions on medical matters which occur at the meetings of Convocation. The Annual Committee elected by Convocation to uphold its interests, to carry out its decisions, and to investigate various subjects referred to it, gives careful attention to questions brought under its notice, and issues valuable reports. Its vulnerable point is that it is not a representative body. The mode of its election causes the retention of the same members year after year, unless they happen to drop out through lack of attendance or voluntary retirement, and thus it becomes essentially a conservative body—using the word conservative in its lower sense of resistance to change and progress. Although it has rendered good service to the University as a medium of communication and interchange of views with the Senate, we cannot call to mind any great advance which has been made through its influence in the developmental life of the University. To have its proper weight it should be elected by the whole body of graduates, and a certain fixed number of members should retire annually. An unfortunate clause in the charter forbidding the use of voting papers at any other elections than the election of nominees for the Senate prevents the attainment of the former condition ; the rules of election and the adhesive qualities of the stereotyped members are opposed to the latter.

The influence of the Corporations over the *morale* of the profession is deserving of a passing notice. Members of the College of Surgeons of England and Licentiates of the other Colleges are required on admission to promise to observe and obey the by-laws, statutes, and ordinances of their respective Colleges. At the Royal College of Surgeons of England the Members promise to obey any lawful summons issued by the Council, having no reasonable excuse to the contrary, to demean themselves honourably in the practice of their profession, and to the utmost of their power maintain the dignity and welfare of the College. At the Royal College of Surgeons of Ireland every person approved for the Letters Testimonial must make a declaration that he will to the utmost of his power promote the reputation, honour, and dignity of the College. At the Royal

College of Physicians of London Licentiates are not allowed to assume the title of Doctor of Medicine, and they must agree to submit to such penalties as may be lawfully imposed for any neglect or infringement of the by-laws, statutes, and regulations. At the King and Queen's College of Physicians, Ireland, candidates for the Licence solemnly undertake "to the best of their power to endeavour that the honour of the College be preserved entire, and to submit to censure, expulsion, or surrendering of diploma for violation of the laws, or of the conditions of the declaration; not to keep open shop for the sale of medicines; not to resort to any unworthy means of obtaining practice or attracting public notice, nor use nor permit their names to be used in connexion with any secret remedy, nor compound nor dispense medicines for sale." For their own patients Licentiates of Colleges may compound. Fellows of Colleges before admission are required to make similar declarations, and to abjure all connexion with the drug trade. They are placed in some instances under special prohibitions. The ordinances of the Royal College of Surgeons of Edinburgh may be quoted as illustrative of proper professional conduct and etiquette:—"No fellow of the College shall keep an open shop for the sale of drugs or other merchandise. No fellow of the College shall allow his name to be connected with advertisements or publications of an indelicate or immoral nature. No fellow of the College shall practise or profess to practise by the use of or according to any secret remedy or method of treatment, or shall connect himself in partnership or otherwise, or continue in connexion with any person practising by means, or advertising the sale of, any secret remedy. No fellow shall be guilty of any deception or immorality in the practice of his profession, or shall in any way conduct himself inconsistently with the honour and decorum which become his position as a fellow of the College." At the Royal College of Physicians of Edinburgh the fellow affixes his name to a long promissory obligation, solemnly declaring and surely promising to the utmost of his power to preserve and maintain the privileges, liberties, jurisdiction, and authority granted by the charter for the good and necessary ends and uses therein mentioned, to avail himself of all occasions to promote the welfare, prosperity, and utility of the College, and always to give his vote when it is asked, as he conscientiously thinks may be most conducive to these purposes, as far as he is able to promote and preserve unity, concord, amity, and good order among

the fellows, members, licentiates, and candidates thereof, and heartily wish and endeavour to promote the prosperity of them all, as long as he continues a fellow; to be at all times subject to the due order and government of the College, according to the aforesaid charter, and to conform and be obedient to the laws and regulations of the College; never to divulge or publish anything that is acted or spoken or proposed to be transacted in any meeting of the said College or Council or Court thereof without leave asked and obtained, according to the laws prescribed by the College. All the aforesaid articles the fellow promises to observe, and never wittingly and willingly to break any one of them, as he desires to be held and respected an honest man. The Royal College of Physicians of London not only requires a declaration from its fellows of a like nature to the declarations mentioned, but issues elaborate by-laws relating to the professional conduct of fellows and members. According to a by-law made in pursuance of 21 & 22 Vict., c. 90, fellows of the College are not allowed to sue for professional aid rendered by them. This by-law does not extend to members. Fellows and members must not engage in trade, or make agreements with chemists or other persons for the supply of medicines, or practise in partnership by deed or otherwise. They must not refuse to make known, if so required by the president and censors, the composition of any remedies which they use. Fellows, members, and licentiates guilty of any fraud, imposition, crime, immorality, or dishonourable and unprofessional conduct, may be summoned before the president and censors, and are liable to be admonished, or reprimanded, or fined to the extent of £10, or the case may be reported to the College, and a majority of two-thirds of the fellows may decree forfeiture of privileges and expungement of the names of the offending persons from the College list. "In consultation two or more physicians, fellows, or members of the College must confer together with the utmost forbearance, and no one of them shall prescribe, or even suggest, in the presence of the patient or the patient's attendants, any opinion as to what ought to be done before the method of treatment has been determined by the consultation of himself and his colleagues; and the physician first called to the patient shall, unless he decline doing so, write the prescription for the medicines agreed upon, and shall sign the initials of the physician or physicians called in consultation, he placing his own initials the last. If any difference of opinion

should arise, the greatest moderation and forbearance shall be observed, and the fact of such difference of opinion shall be communicated to the patient or the attendants by the physician who was first in attendance, in order that it may distress the patient and his friends as little as possible. No fellow or member of the College shall officiously, or under colour of a benevolent purpose, offer medical aid or prescribe for any patient whom he knows to be under the care of another legally qualified medical practitioner."

Although the Colleges possess the right of supervision over the proceedings of those who hold their diplomas, this right is rarely exercised except in extreme cases, in which it is a question of striking the offending practitioners off the rolls, and having their names removed from the Medical Register.

To complete the view of professional practice, a short account must be given of the position of an offshoot of the medical profession—*the practice of Dental Surgery.* The true dental surgeon might be included amongst specialists, but dentists as a body are a distinct class, and comprise three separate orders of dental practitioners:—1st. Those who have been educated as medical men, have obtained a qualification or qualifications to practise medicine or surgery, or medicine and surgery, and have subsequently turned their attention to dentistry. 2nd. Those who have obtained one or other of the special qualifications in dental surgery granted by the Colleges of Surgeons of England, Scotland, and Ireland, but are not medical practitioners. Some of the first class have taken a special qualification; others have not done so. 3rd. Unqualified practitioners in dentistry, some being mere tooth extractors, such as chemists and druggists, who have added tooth extraction to the retail drug business. A fourth class might be added, comprising dentists who possess foreign qualifications, genuine or illusory. A typically educated dentist would be a medical practitioner first, and a dentist with a special qualification from a College of Surgeons afterwards. To a dentist of this description only are the terms surgeon-dentist or dental surgeon properly applicable. The second class are properly termed certificated dentists; the third, including unqualified dental practitioners of every kind, must be termed either dentists without any addition, or mere tooth extractors. "Dental surgery, as it is now known," Mr. Tomes has observed, "is a new science, a new branch of the healing art, developed within the last half century, and most rapidly within the last

five and twenty years." The respectable members of the dental profession had always deplored the absence of any recognised means of securing a proper education for dentists, and of authorities possessing power to examine and confer qualifications in dentistry. About twenty years ago an association of dentists was formed in London to secure these ends. One plan was to found a College of Dentists and obtain a charter conferring the requisite powers. The College was instituted in 1856, but did not receive general support. A second plan was to place the dental profession under the supervision of one of the existing corporations. Memorials were presented to the College of Surgeons of England, and in 1859 a new charter was granted to the College, empowering it to examine in dental surgery and confer a licence to practise it. Since that date schools of dentistry have been founded in London, and the practitioners of dentistry have been aiming at acquiring additional privileges from the Legislature. Some have desired admission to a separate list on the Medical Register, but this plan not meeting with the approval either of the medical profession or the General Medical Council, the efforts of dental practitioners were directed in 1877 to promote a Bill which should establish a Register of Dentists. At this time the divergence of views of the first and second classes of dental practitioners—the dental surgeons and the licentiates in dental surgery or certificated dentists—was prominently displayed. The licentiates were desirous of promoting a clause in the Bill which should impose a penalty on those who in the future used the designation of dental surgeon or surgeon-dentist, or even dental practitioner or dentist, without possessing a dental licence—in other words, they would allow dentists, not surgeons, to style themselves surgeons, but would not permit surgeons practising dentistry to style themselves dentists. On the other hand, the most extreme members of the first class—the dental surgeons—would have been glad to make dentistry a recognised branch or specialty of the medical profession, requiring all who desired to practise dentistry to pass through the regular professional curriculum, and take a qualification in surgery before passing the examination for a licence in dental surgery. Between these two parties was a third who, while willing to recognise the sufficiency of the L.D.S. as a qualification to practise dentistry, would encourage the acquisition also of full surgical education and diplomas. All were united on one common ground of opposition to the pretensions of the advertising empirics—the

unqualified tooth-drawers and glass-case practitioners—who endeavoured to impose upon the credulity of the public by puffing themselves and depreciating others. All were anxious to purify the profession and to raise the standard of dental education and examination. The outcome of the divergent efforts of the promoters of dental reform was Sir John Lubbock's Dental Practitioners Bill, which, after amendment, passed through the Legislature during the session of 1878. This Act established a Dentist's Register to which all the three classes of dentists above mentioned are admissible prior to August 1st, 1879—surgeon-dentists, certificated dentists, and *bonâ fide* practitioners of dentistry (alone or in combination with medicine, surgery or pharmacy). The provisions of the Act have been modelled partly on the clauses of the Medical Act of 1858, and partly on the clauses of the Duke of Richmond's Medical Act Amendment Bill, 1878. Any of the Medical Authorities who have power to grant surgical degrees may hold examinations and grant certificates of fitness in dental surgery, and the Medical Council is endowed with a similar power over the courses of study and examinations to that which it already possesses over the medical and surgical curricula and examinations of the Licensing Corporations, and with a similar right of appeal to the Privy Council.

After August 1st, 1879, unregistered persons using the title of dentist, either alone or in combination, or "dental practitioner," or any name or title implying a special qualification to practise dentistry, are rendered liable to a fine of £20; but legally-qualified medical practitioners are exempted from the operation of the clause, and persons holding colonial or foreign qualifications, and not ordinarily resident in the United Kingdom, are also exempted. The Dentists' Register is to contain United Kingdom dentists, colonial dentists, and foreign dentists registered under the Act, in three separate alphabetical lists. Unregistered persons will not be entitled to recover their charges for any dental operation, attendance or advice. Power is given to the General Medical Council to erase names from the Dentists' Register for disgraceful conduct. Prosecutions may not be undertaken by private persons without the consent of the General Medical Council. Whilst conceding to all in the *bonâ fide* practice of dentistry at the time of the passing of the Act the right of admission to the Dentists' Register, the Dental Practitioners Act makes the possession of a special dental certificate from one of the

Corporations having the power to examine and grant certificates in dental surgery an essential condition of *future* registration. A preliminary examination in general education will be required, as well as adequate dental education. It is doubtful whether licentiates in dental surgery will be able to style themselves dental surgeons or surgeon-dentists—some, from the use of the words dental surgery in reference to the examinations and certificates, think with great probability that they will be able to do so; others, from the absence of any mention of titles, and from the removal of the word surgeon from all the clauses in which it appeared in combination with dentist, consider the Act harmless. Prior to the Act anyone could call himself surgeon-dentist, whether he possessed a surgical diploma or not. Apparently the Act does not prevent the certificated dentist from using the title, though it certainly prevents unqualified and unregistered persons from taking any title implying a special qualification. More light will probably be required—the light of experience of the working of the Act—before the question is authoritatively solved. Since the Act was passed the Royal College of Surgeons in Ireland, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow have established dental licences. The Dublin College was the first in the field, and proclaimed a year of grace, during which it would receive from candidates for the dental diploma certificates of moral character, and proof that during two years they had not advertised or adopted any unbecoming practices, in lieu of the ordinary evidence of having passed through a curriculum. The regulation of the College of Surgeons of England requiring that candidates should not have advertised for twenty years was considered too stringent. The certificate of character and abstention from advertisement required the signature of two fellows, members or licentiates of a College of Surgeons, and one member of the Dental Reform Committee or of the Odontological Society. Unfortunately in the official announcement the words "Dental Diploma Committee" had been inserted by some unaccountable mistake instead of "Dental Reform Committee," which consisted of men of good position and repute. The Dental Diploma Committee was an irresponsible but enterprising body formed in Manchester, in May, 1877, for the avowed purpose of elevating the dental profession by using every honourable and legitimate means to obtain a qualification for reputable dentists. The circular convening the Manchester meeting was issued to *every*

dentist in the United Kingdom. The Dental Diploma Committee was entirely independent of the College of Surgeons in Ireland, and its later *modus operandi* consisted chiefly in circulating widely a document headed L.D.S., R.C.S.I., signed by the secretaries, John O'Duffy, of Dublin, and Richard Rogers, of Cheltenham, both licentiates in dental surgery of the Royal College of Surgeons in Ireland, announcing the success of fifty-two candidates for the licence, and urging intending applicants to come forward without delay to the honorary secretary of the Committee. At the same time an encouraging note was sent by the Dublin secretary, enclosing a form of application, giving the date of the next examination, and adding that some of the successful candidates were nearly sixty years of age. The postscript to the letter was as follows:—"P.S.—When the Register is published practitioners will have to appear in the same list with their own footmen and apprentices. Without qualification Jack will look as good as his master." The touting action of the Committee tended to throw unmerited discredit on the Royal College of Surgeons in Ireland, owing to the typographical error in the printed form of announcement, and to the erroneous belief that the Dental Diploma Committee had been specially deputed as sponsors of the ten guinea title, and accepted fees of varying amount from the candidates whose applications they endorsed. Mr. O'Duffy, on his part, has explained the independent character, high motives, and freedom from sordid dealings which have distinguished the Committee; and Mr. Macnamara, the representative of the College in the Council, has repudiated, on behalf of the College, all connexion with the canvassing Committee. Quite recently the fellows and licentiates of the College have sent a memorial to the Council praying that the new licence in dental surgery should in future only be granted to licentiates in surgery of the College. When the matter came before the Council for discussion an animated debate was terminated by a resolution, in accordance with the prayer of the memorial, which was carried by the casting vote of the chairman, six members having voted for and six against the motion. Owing, however, to an informality in bringing the matter before the Council, the question had to be discussed afresh. At the second meeting the proposition was rejected by a small majority.

By the operation of the Act the dental profession will in time be purified from all unqualified practitioners, as licentiates in dental

surgery alone will be admissible to the Register. A British Dental Association is in course of formation to watch over the interests of the dental profession and to establish a dental benevolent fund. A meeting of the General Medical Council—the third meeting in 1878—was held in October, to transact the business arising out of the Dental Practitioners Act. The fee for registration was fixed at £2 for persons registering before January 1, 1879, and at £5 for persons registering after that date—the fee of 5s. being fixed for entering additional diplomas, memberships, degrees, licences, or letters in the "Dentists' Register," and the same fee for restoration of names erased through neglect of duty by registered dentists, under section 12 of the Act. A form for registration was adopted. It was resolved that the "Dentists' Register" should be printed, published, and sold at the price of 1s. a copy (or 1s. 3d. post free); that the first edition should be published as soon after the 1st of August, 1879, as possible, and that in subsequent years the "Dentists' Register" should be published at the same time as the "Medical Register"—additions made from January to June in each year being printed and issued at the same time with the additions made in the "Medical Register;" that the registration of dental students be carried on at the Medical Council Office in London, and at the Branch Council Offices at Edinburgh and Dublin, subject (with some special exceptions) to the same regulations as regards preliminary examination in arts. A committee was appointed under clause 15 of the Act for the purpose of erasure of names from the "Dentists' Register," the members to receive the same remuneration as the members of the Executive Committee.

About 4,790 dentists have been registered up to the present date (March, 1879). Of the number registered 314 are licentiates in dentistry of the Royal College of Surgeons of England, and 91 licentiates in dentistry of the Royal College of Surgeons in Ireland. Of 4,382 who put in their claim to be registered on the ground that they were *bonâ fide* engaged in the practice of dentistry at the time of the passing of the Act, 2,493 have declared themselves to have been practising dentistry separately; 21 in conjunction with the practice of medicine; 12 in conjunction with the practice of surgery; 19 in conjunction with the practice of medicine and surgery; and 1,837 in conjunction with the practice of pharmacy. Two foreign dentists who claimed to be registered had based their claim on the doctorship of dental surgery (degree of D.D.S.)

granted by the University of Philadelphia—an institution which distinguished itself by the sale of degrees through travelling or local agents, and whose existence the Registrar believed had terminated. In March, Dr. Acland, the president, stated in his address to the General Medical Council:—"English law is very jealous of interference with existing rights. There is a class of persons now practising dentistry which will not, after the 1st of August, be again reckoned among English dentists. What these do now, they will up to that date continue to do. Hairdressers, perfumers, jewellers, blacksmiths, and others, have hitherto exercised the functions of tooth-drawing. The law will not hinder them from doing so. If any of them, however, have fraudulently returned themselves to your office as *bonâ fide* in practice, either separately or in conjunction with the practice of medicine, surgery, and pharmacy, it will be your duty to expunge their names from the Register. The Council will refer alleged cases to a committee of five. This committee will ascertain the facts in each case. The committee cannot erase the name, nor, pursuant to a legal opinion recently obtained, can it commence proceedings till each case has been formally submitted to the Council. The erasure must be the act of the Council itself, and this may at first constitute, no doubt, an onerous as well as a serious duty."

The regulation and control of *Pharmacy* have been vested in the Pharmaceutical Societies of Great Britain and Ireland, which have taken the place of the Apothecaries' Societies as the supreme authorities over chemists and druggists and their assistants. The Pharmaceutical Society of Great Britain, which was founded in 1841 for the advancement of chemistry and pharmacy, the promotion of a uniform system of education among chemists and druggists, and the protection of those who were in business in those capacities, was incorporated by royal charter on the 18th February, 1843. The charter authorised the Society to hold examinations for the admission of members and associates. The management of the affairs was placed in the hands of General Meetings and a Council of twenty-one members, including the president, vice-president, and treasurer. The Pharmacy Act of 1852 established a Register of the persons connected with the Society. All persons who, at the time of the passing of the Act, were members, associates, apprentices, or students, respectively, were to be registered as pharmaceutical chemists, assistants, and apprentices, or students,

respectively. All other persons were obliged to qualify by passing the examinations which the Society were authorised to prescribe. Protection was given to the titles of "Pharmaceutical Chemist," "Pharmaceutist," and "Member of the Pharmaceutical Society." Examiners appointed under the charter and by-laws or under the Act were empowered to examine those who presented themselves in the Latin language, botany, materia medica, and pharmaceutical and general chemistry, and such other subjects as might from time to time be determined by any by-law, *provided that such examination did not include the theory and practice of medicine, surgery, or midwifery*, and to grant or refuse to the candidates certificates of competent skill and knowledge and qualification to exercise the business or calling of pharmaceutical chemists, or to be engaged or employed as students, apprentices, or assistants, respectively. *No person who is a member of the medical profession can be registered, and pharmaceutical chemists obtaining medical or surgical diplomas or licences are removed from the Register for the time during which they engage in practice.* Thus the Pharmacy Act of 1852 established a clear line of demarcation between pharmaceutical chemists—the best-educated men of their calling—and medical practitioners. It afforded to the public the means of distinguishing between qualified and unqualified chemists, but it did not interfere with ordinary chemists and druggists in the sale of medicines or dispensing prescriptions. The Pharmacy Act of 1868 went further. A Register of Chemists and Druggists was established. Facilities were given to all persons in business on their own account, at or before the passing of the Act, to enrol their names as chemists and druggists. All persons afterwards desirous of admission to the Register were required to submit to an examination. The Register was to be published annually. By the charter of the Society and the Pharmacy Acts of 1852 and 1868 the following registrable orders have been established:—

1. *Pharmaceutical Chemists.*—To become a pharmaceutical chemist it is necessary to pass three examinations established by the Society. The *first*, or *preliminary*, *examination* comprises Latin, arithmetic (including vulgar and decimal fractions, simple and compound proportion), and a thorough knowledge of the British and metrical systems of weights and measures, and English grammar and composition. The *second*, or *minor*, *examination* comprises reading and translating prescriptions, the doses of medicines, practical dispensing,

and the recognition of drugs and preparations, the manipulations of the laboratory, materia medica, botany, and chemistry. The *third*, or *major*, *examination* comprises materia medica, botany, and chemistry of an advanced character.

2. *Chemists and Druggists.*—To become a chemist and druggist it is necessary to pass the preliminary and minor examinations established by the Pharmaceutical Society. There is a modified examination for assistants under the Act of 1868 to become registrable as chemists and druggists.

3. "*Apprentices*" *or* "*Students.*"—The first, or preliminary, examination of the Pharmaceutical Society must be passed.

The Pharmacy Act of 1868 had this defect—it did not extend to Ireland, or make any provision for the admitted want of skilled compounders in that division of the Kingdom. The practice of pharmacy was regulated by the Act of 1791, which created a monopoly for the licentiates of the Apothecaries' Hall. According to the Senate of the Queen's University in 1855 the Act had worked well and carried out its objects in providing educated apothecaries for the public service; but if this was the case in 1855 the condition of affairs changed greatly for the worse after the passing of the Medical Act. The apothecaries raised the standard of acquirement, and demanded for the certificate of apothecary four years' study and attendance on almost all the courses of the medical curriculum. The result was—so Sir Dominic Corrigan averred—that many of those who passed through the curriculum of the Hall and took the licence, declined settling down in a country town or opening a shop for compounding, but went off to the colonies or into the army and navy, whilst others declined making up prescriptions or retailing medicines. If any independent chemist opened a shop in Dublin or elsewhere, he was subjected to a prosecution from the Hall and fined £20 for each prescription dispensed. This power was exercised in Dublin by the Hall three times in six months; and its secretary stated, on January 15th, 1874, to the Marquis of Hartington, that to his knowledge there were from twenty-eight to thirty of the most important market towns in Ireland, with populations varying from 10,000 to 50,000, wherein there was no apothecary or competent person qualified to compound medicines, causing great inconvenience. Persons qualified under the English Pharmacy Acts, equally with unqualified persons, were prevented from opening shops for compounding prescriptions by the penal

clause of the Irish Apothecaries Act. The outcome of the deficiency was that in 1875 the Duke of Richmond introduced a Bill for the institution of a Pharmaceutical Society, and to regulate the qualifications of chemists and druggists in Ireland. He stated that only licentiates of the Apothecaries' Hall could keep open shop for compounding prescriptions, and that very few took the licence for this purpose, not caring to submit themselves to so extensive an examination. The Bill at first proposed that there should be reciprocity between the Pharmaceutical Society of England and that of Ireland, in accordance with the provisions of a Bill drafted by the King and Queen's College of Physicians in Ireland, but the Pharmaceutical Society of England objected, and the clause was removed. The provisions of the Bill included the establishment of a Pharmaceutical Society, the nomination of a Council—giving power to the Council to institute examinations—formation of two grades of chemists, one to be called "pharmaceutical chemists," and the other to be called "chemists and druggists," the former having to pass the major and the latter only the minor examination. No one was to keep an open shop for the sale of poisons and the compounding of drugs, unless he was registered in one of the two grades or was a licentiate of Apothecaries' Hall or a duly registered medical practitioner. The Bill reserved existing rights, and allowed pharmaceutical chemists to fill the office of apothecary in district lunatic asylums and county gaols in Ireland.

The Medical Act of 1858 authorises every medical man who is registered under the Act to practise according to his qualification or qualifications—that is to say, if he is licensed to practise medicine he may practise medicine and not surgery, and if licensed to practise surgery he may practise surgery and not medicine; if doubly qualified or licensed he may practise both branches. Similarly, the Medical Act gives him the power to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice and visits, and the cost of any medicines or other medical and surgical appliances rendered or supplied to his patients, "but he can only recover according to his qualification or qualifications." No unregistered practitioner can recover in a court of law. The public Register for the year is evidence of registration or non-registration. Prior to the Medical Act it was a universally-established rule that the physician could not maintain an action for fees. He must receive his fees at the time of the

attendance. A physician, however, who was also a surgeon or apothecary could recover for services rendered in either of those capacities. But for section 31 physicians generally would probably have been entitled to recover their fees, and there seems no good ground for depriving them of their just claim. If they are deprived of it, they have to thank the excessive respectability of the College of Physicians with which they are connected, and which has power to frame a legally binding by-law prohibiting recovery. Fellows of the College are prohibited from suing for their fees, but the by-law does not extend to members. Physicians who are only graduates of Universities can recover. Surgeons can recover in surgical cases, but are liable to be non-suited if they sue in cases clearly medical. An apothecary was enabled by the Apothecaries Act to recover his fees, provided that he was in practice prior to 1815, or had obtained a licence from the Apothecaries' Society. In 1829 it was held that he might claim remuneration either for his medicines or for his skill and attention, but that he must not charge for both. The following year Lord Tenterden allowed an apothecary to charge 2s. 6d. for each attendance, in addition to his charge for medicine. After this, for some years, 2s. 6d. was considered to be the proper legal charge for the attendance of an apothecary. In 1838 the right of the apothecary to claim compensation both for medicine and advice was confirmed by Littledale, J., who laid it down that "in some cases an apothecary may certainly charge both for medicine and for attendance." The only difference established by the Medical Act in the position of apothecaries is, that they must be registered under the Act in order to be able to recover. Practitioners who are physicians, surgeons, and apothecaries have the right to recover alike in medicine, surgery, and pharmacy.

There are three evils afflicting the practice of physic which require notice—practising with a single incomplete qualification; the combination of the chemist's retail trade with the practice of the medical profession; and practising without any qualification, including the counter-practice of chemists and druggists and the employment of unqualified assistants.

*General practice on the strength of a single qualification, either medical or surgical*, has always been very prevalent. Many a student has passed either the College of Surgeons of England or the Apothecaries' Hall and practised in all branches of the profession,

by virtue of the non-medical membership of the former or the non-surgical licence of the latter Corporation. Twenty years ago, when the membership of the College of Surgeons of England was conferred after an hour's examination in anatomy and surgery—an examination which ignored altogether medicine, midwifery, materia medica, and subjects collateral to the purely professional subjects—the holders of the College diploma practised medicine and midwifery with impunity. The examination at the Apothecaries' Hall was decidedly more comprehensive, and included the subjects which the College omitted, but omitted the subjects which were the staple of the College examinations—anatomy and surgery; yet, with the qualification of the Hall only, medical men practised surgery as well as medicine. Prosecutions against members of the College of Surgeons for practising medicine, formerly undertaken by the College of Physicians, had long ceased, and the College of Surgeons did not exercise its power to restrain the practice of surgery by licentiates of the Apothecaries' Society. The Medical Act of 1858 admitted practitioners with one qualification to the Medical Register, and so far tended to perpetuate the evil. The 31st clause of the Act, however, coupled with the penal clause (clause 40), appeared to be opposed altogether to medical and surgical practice which went beyond the privileges conferred by the qualifications possessed by the offending practitioners. Hence, when Registration Associations sprang up in all parts of the country after the passing of the Medical Act, prosecutions were undertaken by these Associations and by private individuals against their professional brethren who overstepped the limits of their privileges and qualifications, as well as against those who practised without any qualification at all. Thus, in 1859 we find Mr. Fitzpatrick, a surgeon of Stoneycroft, near Liverpool, prosecuting not only T. L. O. Howard for practising as surgeon, being unregistered and unqualified, but also Mr. J. S. Hallows, of Liverpool, who, at that time, possessed only the qualification of L.S.A., obtained in 1822, for using the title of surgeon. Mr. Hallows had used the title before the Act was passed, and did not discontinue it afterwards. He was fined twenty shillings. After the prosecution he became a member of the Royal College of Surgeons of England, and registered the title.

The prevalence of practice with a single qualification may be judged from the following statements made by Dr. Edwards Crisp,

in a valuable pamphlet relating to the state of the medical profession in 1867:—"Since the passing of the Medical Act of 1858 (for which the profession has paid £40,000), no less than 759 men have been placed on the Register with one qualification." "More than one-fourth of the practitioners in the United Kingdom are practising with only one diploma, more than 2,000 with the non-medical diploma of the College of Surgeons of England, and more than 600 with the non-surgical diploma of the Apothecaries' Company. The number of surgeons in the navy with one qualification is 395, whilst those in the army amount to 186. Of these 195 are members of the College of Surgeons only. Out of those practising in the Colonies, the packet and other services, there are 100 with one qualification only." It is proper to add that since the above passages were written, the College of Surgeons of England has passed a rule not to grant its diploma to any candidate who has not passed an examination in *medicine*. By this regulation the evil has been diminished to some extent, but the M.R.C.S., Eng., is still far from being a complete qualification, and the licence of the Apothecaries' Hall is conferred without an examination in surgery. Dr. Crisp analysed the "Irish Medical Directory" for 1870. He found "2,350 names of practitioners recorded. These gentlemen possessed between them 2,136 Irish qualifications, 1,347 Scotch qualifications, and 556 English qualifications. 607 of the 2,350 medical men in Ireland were practising with one qualification only, and 187 of these with the licence of the Dublin Apothecaries' Society."* It is probable that there has been a considerable improvement since Dr. Crisp's calculations were made. Some of those on the Medical Register with only one qualification having recently obtained their diplomas, will certainly take additional qualifications, others may not have registered more than one. The fact that the majority of those practising with one diploma passed their examinations a good many years ago indicates that there would be a marked diminution of the evil in the course of a few years. At the same time there is no absolute security against its continuance or increase until a provision similar to that contained

* Crisp made an analysis of the "Irish Medical Directory" for 1859. There were 2,011 practitioners; 186 were thought to be unqualified. Of the 1,825 remaining, 577 had English, 931 Scotch diplomas, making 1,408 in all—leaving only 417 with Irish diplomas. Only one practitioner in Scotland had an Irish diploma, and he was an Irishman.

in the Duke of Richmond's Bill—that no one shall be registered who is not completely qualified—is passed by the Legislature.

*Unqualified practice* has prevailed from time immemorial, and appears likely to prevail in all time to come. Charters of kings and Acts of Parliament have recognised the evils inflicted on loyal subjects by ignorant pretenders and quacks taking upon themselves to heal wounds and cure diseases. The grievous hurt done by common artificers, smiths, weavers, and women, mountebanks, empirics, and other ignorant and illiterate persons, the frauds and deceits of apothecaries and druggists—have all been made the subject of comment, and assigned as the reason for legislation. Exclusive powers have been granted to Corporations for the suppression of evils of this kind, but the result has always been the same—quacks have continued to abound and flourish, and unqualified persons have continued to practise and prescribe. It cannot be otherwise so long as the Legislature proceeds upon the principle which it at present professes. This principle is the liberty of the subject. It is held that every man has a right to choose his own doctor—qualified or unqualified. The Legislature will provide the means by which any one requiring medical advice may distinguish between qualified and unqualified practitioners, but it will not undertake to suppress unqualified practice altogether. It will prescribe pains and penalties for any bodily harm caused by unqualified persons, but it does not consider prevention in this instance better than punishment or cure. It will say to the subject who employs a quack, "Beware," but it will not do that which would render this caution unnecessary. It will legislate against cheating and imposture in various forms—against gambling and thimblerigging and cardsharping—but against the quack who will delude the inexperienced by raising false fears, encouraging delusive expectations, and robbing his patient of every available penny he may possess, it will do nothing. Reflection must convince every member of the House of Commons and every noble lord that there can be but one right and successful way to acquire medical knowledge and skill, and yet the Legislature will proceed upon the doctrine of innate medical ideas and inborn medical skill, and for fear of rudely extinguishing some heaven-sent medical genius—some inspired cancer-curer or bone-setter—it will foster a set of the lowest swindlers that ever disgraced humanity. The powers conferred on the Corporations are weapons which have broken in the hands that

wielded them. We have seen that the College of Physicians directed its artillery, not against impostors and pretenders, but against surgeons and apothecaries, and that its guns were silenced for want of the sinews of war. The College of Surgeons will not prosecute, and will not allow others to use the powers given to it for the purpose of prosecution. The only means of putting down unlicensed practice possessed by the profession within the last twenty years have been the Medical Act, by virtue of the famous 40th clause, and the Apothecaries Act of 1815, by virtue of the 28th clause. The 40th clause collapsed within the first two years after the passing of the Act, in the manner already described. More recently one or two convictions have been obtained under it with great difficulty, but the penalties inflicted in London, instead of being paid to the Medical Council, in accordance with the intention of the 42nd clause of the Medical Act, have been generally retained by the Receiver of the Metropolitan Police Districts, under Act 2 & 3 Vic., cap. 71. More success has attended the campaign conducted by the Medical Defence and Medical Alliance Associations against the counter-prescribing chemists with the aid of the new weapon, the 28th clause of the Apothecaries Act of 1815. Mr. R. H. S. Carpenter, the devoted and indefatigable Honorary Secretary of the Medical Alliance (formerly the East London Medical Defence Association), stated in September, 1878, that the Association, which was founded in March, 1875, for the purpose of suppressing the practice of medicine by unqualified persons, and procuring an amendment of the Medical Act of 1858, had instituted twenty-seven prosecutions, and caused several inquests to be held in cases attended by pharmaceutical chemists. The battles of the Association with the counter-prescribing chemists have been fought on the lines of the 28th clause of the Apothecaries Act, which provides that "chemists and druggists shall and may hereafter use, exercise, and carry on the same trade and business, in such manner, and as fully and amply, to all intents and purposes, as the same trade or business was used, exercised, or carried on by chemists and druggists before the passing of the Act." The Apothecaries' Society has merely lent its name to the Medical Alliance Association and the Medical Defence Association, and the penalties recovered have been paid to the Society, and not without difficulty been obtained from the Society for the payment of the expenses of

the prosecutions. As an illustration of the class of prosecutions undertaken, and the state of the law, the case of the Apothecaries' Company *v.* Wiggins, tried before Mr. Justice Field, may be adduced. The action was undertaken by the Medical Defence Association against a chemist named Wiggins, living at Bermondsey, for acting as an apothecary in prescribing for and advising patients. The evidence showed that Mr. Wiggins had not confined himself to his proper business—"the buying, preparing, compounding, dispensing, and vending of drugs, medicines, and medicinal compounds"—but that he usurped the functions of a medical practitioner, questioning the patient, feeling the pulse, examining the tongue, and giving his opinion as to the nature of the case, and his advice as to its treatment. Mr. Wiggins admitted that he compounded and sold the medicines, and the evidence adduced having proved that he acted as an apothecary, the only question remaining was whether it had been the custom of the trade prior to the Apothecaries Act to attend and prescribe for the complaints which Wiggins had attended. The jury found that the defendant—(1) had acted as an apothecary; and (2) that it was contrary to the custom of the trade prior to the passing of the Apothecaries Act. Judgment was given for the full amount of the penalty (£20) and costs.

This victory in the spring was followed by a defeat in the autumn, in the case of the Society of Apothecaries *v.* Shepperley. The action was tried on appeal against a local conviction, in the Exchequer Division, in November, 1878, before Baron Pollock. The defendant was a chemist at Nottingham, and the action was brought by some medical practitioners in that town, associates of the Medical Defence Association. The ground of action was that the defendant had acted as an apothecary without a certificate. The defendant denied that he had so acted, and said that if he had done so, within the meaning of the Act of 1815, he had only dispensed and vended drugs as a chemist and druggist prior to the year 1815, and was protected by the 28th section of the Act. He also maintained that there was a custom in the trade to prescribe for simple complaints. The chief evidence offered for the prosecution was that of Mr. Thomas Jolly Death, of No. 28 Basinghall-street, City, who had resided at Nottingham prior to the action. He had been an inquiry-agent, and employed in extradition cases, and he appears to have been engaged to obtain the necessary

evidence against Shepperley. He went to the defendant's shop and complained of a sore throat (he *had* a slight sore throat), difficulty of breathing, tightness of chest, and sleeplessness (these symptoms were assumed). The defendant told him to face the light and open his mouth, and then looked down his throat and said:—"I do not see much amiss with you." The defendant gave him some medicine and told him to come again when that was finished, and to keep from smoking. He paid defendant a shilling and that was all that passed. For the defence three aged chemists, eighty, eighty-three, and eighty-five, were called to prove the custom of chemists prior to 1815. One had been apprenticed to a chemist at Uttoxeter, in May, 1814. His master used to make inquiries of customers as to their complaints. In the case of a cold he would ask whether it was in the nose or the bronchial tubes, and dispense accordingly. If asked he would feel a person's pulse, but would not look down his throat. The medicine alone was charged for. Baron Pollock pointed out to the jury that they must not be governed by extreme cases, but must consider how dangerous it is to put such a power as that referred to into the hands of a person who had not been properly educated. He could not give any distinction between the treatment of serious and simple cases. It would be a very difficult thing, in many cases, to distinguish between them, and no such distinction was made in the Act itself. The jury soon returned a verdict for the defendant. This action has been called a test case, but no case less deserved the description—a weaker case could not have been tried. To employ a detective was a serious error; to put him into the box to state that he had feigned a simple illness was a still more serious error, for it could have only one result with a British jury. Very different was the case against Wiggins. In that case the defendant had treated four children, three of whom were subsequently attended by a medical man, but ultimately died. In two of the cases the children were brought to the shop and Wiggins felt their pulses, made some inquiries and gave a bottle of medicine, for which he charged 7d. In the two other cases the mothers came and described the symptoms to the defendant, who gave medicine and directions. The children proved to be suffering respectively from bronchitis, pneumonia, scarlet fever, and convulsions. These were serious illnesses, and the jury could not defend the practice on the ground of custom of the trade before the Act. Conviction

was assured. Shepperley's case is only a test case, so far as it has elicited the opinion of the public. Sir Henry James put the matter coarsely, but expressed a prevalent opinion, when he said:—"The question was a very serious matter in the interest of *two professions*" (*sic*) "and of the public, affecting as it did the dealings of persons in every-day life throughout the whole country. His learned friend had put the case before them as if it was a patriotic action brought for the benefit of the public, so as to protect them from acts of ignorant persons, who might impose upon them by professing to have knowledge which they did not possess. Such an allegation, however, only existed in the minds of those who instructed his learned friend. The true facts of the case were that the action had been brought by persons in one class of business—he said business, because on the present occasion it was a more fit term to use than profession—to deprive chemists and druggists of their legitimate trade, and put the money of the public into their own pockets, and to prevent chemists and druggists from exercising the least discretion during the sale of medicine in their own shops." This view, however unjust, has been endorsed in the columns of the press. The writer of a leading article in the *Standard* says: "Many people, especially among the poorer classes, readily resort to the chemist for medicine, and perhaps a little advice; and, although he knows that he prescribes—if it may be called prescribing—at his peril, it is absurd to suppose that he is not competent to deal with trifling ailments. It is, of course, desirable that chemists and druggists should be properly qualified men, but the public are not inclined to look with favour upon prosecutions, the chief object of which appears to be to put fees into the pockets of the doctors, or into the coffers of privileged bodies."—November 11, 1878. The case for the chemists and druggists and the public convenience is put still more strongly in the *Daily Telegraph* of the same date. "If Mr. Shepperley has violated the law he has erred in company with perhaps every chemist in the United Kingdom. Hardly an hour of the day passes without a customer entering to complain of some common ailment or accident—a cough, a cut finger, a scald, a cold—and asking for some known and approved remedy. Still more frequent are the appeals of the poor for the relief to their children suffering from a customary infantile illness. To put all this down by the strong arm of the law would inflict on the masses of the people considerable hardship.

The head of even a middle-class family hesitates to call in a general practitioner, whose bill at Christmas may be swollen by visits, sometimes repeated beyond the necessity of the case; and how much more do the needy shrink from incurring such expense! They know, as a matter of fact, that, both as regards themselves and their children, there are ailments that simply require a little medicine promptly given; and, instead of summoning the doctor, or calling at his house on the chance of seeing him, they enter the next chemist's shop, and for a few pence obtain at once the means of cure. Recourse to a doctor in such cases means not only loss of money, but loss of time in a double sense. The professional man may not be at home, or cannot come immediately when called, while the chemist is always behind his counter. A still more important consideration is involved. If we prohibit the chemist from seeing customers, and selecting medicines for them, we shut off from the poor cheap and ready medical assistance, and thus force upon them one of two alternatives—expensive treatment or neglect. The latter will probably be preferred, and thus many a slight indisposition will grow uncared for into a grave illness, causing heavy loss, and requiring, in the long run, first-rate medical advice. We often see this result among the poorer middle-class. No people so severely suffer from want of medical aid as those whom we call the 'genteel poor.' They do not belong, like artizans, to sick clubs; they shrink from contact with the crowds who besiege the doors of the great hospitals; they are ashamed to visit a physician at the hours he devotes to gratuitous advice. If they have 'seen better days' they remember bitterly when they need not have had recourse to these devices of the necessitous. They cannot command the guinea fee for the regular physician, and they anticipate with dread the bill of the general practitioner, who, if once called in to a chronic case may come day after day, adding each time to their obligations. Consequently there is amongst these classes almost as great a need for the cheap and ready help of the chemist as among the artizans. There is another advantage in the chemist's shop. A working man, with his limited income, may not be able to afford a regular fee for advice, and yet may be ashamed to class himself with the gratuitous patients of the hospital, or the outdoor paupers who call in the parish doctor. The chemist supplies a middle way, for, though he does not charge much, his patients are not humiliated or pauperised

by consulting him, as they pay full price for what they have. Are we, by prohibiting his useful services, to divide all sick persons into two classes—those who, at the hospitals, or on the parish, pay nothing, and those who must call in and fee a medical man? Such a course seems to us injudicious, since it would impose on the needy heavy burdens, tempt them to neglect the first symptoms of illness, or force them down into the ranks of those who rely on charity for medical advice. We cannot be too severe on unqualified medical men or quacks, who trade on the ignorance and fears of nervous people. *But there never can be any danger in the humble work of the chemist judging for himself the right remedy for slight symptoms or common complaints.* He is, in the nature of things, shut out from serious practice. No man or woman, seriously ill, could or would come out of doors to be treated. The natural tendency of every chemist is to send any case of advanced illness to the regular doctor, for he loses nothing by it, because the medicines to be taken will, as a rule, be obtained at his own shop. If, however, we compelled him to do this in all cases, we should simply deprive the people of the services of one who, through his varied and extended experience, is sometimes well able to know the character of the illness presented to his observation. A chemist like Mr. Shepperley, who makes up thousands of prescriptions in a year, sees scores of customers daily, and hears of hundreds of cases, must inevitably acquire a large amount of useful knowledge relative to the healing art. He may not have the science or the skill to treat a difficult or grave disease, but he must be wonderfully unobservant or abnormally dull if he cannot detect and deal with early symptoms or slight ailments as well as a physician. Then, if the attack passes into something serious, is it not a distinct advantage for the doctor to be able to refer to a person who knows something of the case, much of the patient's constitution and antecedents, and who understands the nature of the drugs to be used? In this new fight for medical liberty, we sincerely hope that the chemists will finally be as successful against the apothecaries as the apothecaries were against the physicians in 1703." We have quoted this article at some length, because it embodies very prevalent views, and exhibits at once the strength and the weakness of the advocates of counter-prescribing chemists. The strength of their case lies in the first part of the extract, which dwells upon the convenience of always finding the chemist behind his counter; the hardship of

driving patients with trivial ailments to a doctor who will keep up his attendance, and send in a comparatively heavy bill; and the inexpediency of making them choose the alternative of seeking gratuitous advice in the out-patient rooms at dispensaries and hospitals. Doubtless some middle way is required, but the last part of the extract emphatically demonstrates that which it was not intended to demonstrate—that the chemist and druggist is not the middle way of which we are in search. The article makes assertions which are the exact opposite of the truth. It boldly announces *that there never can be any danger in the humble work of the chemist judging for himself the right remedy for slight symptoms or common complaints* [the italics are our own], and speaks of the chemist's varied and extended experience and large knowledge of the healing art. It even goes so far as to maintain that the chemist, by reason of his experience, such as it is, can detect and deal with early symptoms or slight ailments as well as a physician. It is obvious that the article was written by one who knows little of the profession of medicine, or of the education necessary for its efficient practice; and it would scarcely be worthy of serious attention if it did not reflect the views of many similarly placed, and represent opinions which it is desirable to eradicate. The summary which has been given of the subjects of education and examination of chemists and druggists will show what the writer of the article in the *Daily Telegraph* may be surprised to hear—that chemists and druggists are not taught or required to know anything at all of the structure of the human body, or anatomy; the functions of the human body, or physiology; or the injuries or diseases to which the human body is liable, and their appropriate treatment—medicine and surgery. What they are required to know is botany, chemistry, and materia medica—that is to say, they must know the structure of plants, be able to recognise indigenous plants; must have a practical knowledge of the way to make chemical substances used in medicine, of the composition of compound substances, and of chemical tests and reactions; must be able to recognise the substances used in medicine; be acquainted with the doses of medicines and poisonous substances; and must also be able to decipher physicians' prescriptions. Like ordinary people, they have heard or read of rheumatism, bronchitis, and other common ailments, and prescriptions of physicians for various complaints pass through their hands, and are copied into their books. If, therefore, a patient comes into a

chemist's shop and says—"I am suffering from so-and-so, and have been recommended by my medical attendant to take this medicine, but it has not done me any good; can you give me something else?"—the chemist may make use of some other prescription which he has by him, or make up something which he has heard or read is good for the complaint. It might be better if he declined to prescribe, but he could not be greatly blamed for selling his drugs in this manner. The patient has been to a doctor and ascertained the nature of his ailment, and not wishing or not being able to afford to pay for another consultation, he makes use of the knowledge acquired by the chemist. But when the chemist goes further, and begins to form an opinion for himself on the nature of cases which have not been seen by a medical practitioner, however trivial the complaints may seem, he is acting in a manner which is not only dishonest but incompatible with the safety of the public. It cannot be too strongly stated that the chemist is quite incompetent to tell whether any given ailment is a trivial complaint or the premonitory symptom of a serious illness. A person suffering from a pain in the back, which the chemist would probably consider to be lumbago, and for which he would order a liniment, may be sickening for small-pox. What appears to be an ordinary cold may be the commencement of measles. A little diarrhœa may be typhoid fever. Now these are the kind of cases which it is especially desirable, both for the patients themselves and their friends, should be early recognised, and not complicated or prejudiced by the injudicious interference of the prescribing chemist. "Cerebral irritation in a young child," says a writer in the *Lancet*, "debilitated by worm-powders, congested with 'sedatives,' or complicated and increased by 'cordial carminative' mixtures, given to arrest a diarrhœa which has lasted some days or even weeks, and from the outset was symptomatic of brain mischief; bronchitis treated for whooping-cough; cerebro-spinal convulsions dosed with teething powders; these are the intractable 'complaints' of children that swell the death-rate, harass and discomfit medical practitioners, and plunge families into the abyss of domestic sorrow." So far from the chemist being able to deal with early symptoms as well as the physician, the physician himself finds peculiar difficulty in their detection and treatment. The chemist is entirely incompetent to undertake the task. The physician, accomplished and expert, is sometimes at fault. If any proof were needed of the danger of

counter-practice in ailments apparently trivial, it would be found in the case of Wiggins, already quoted. The simple complaints for which medicines and advice were given proved to be bronchitis, pneumonia, scarlet fever, and convulsions, and three out of the four cases terminated fatally. This is a grim commentary on the glib announcement that "*there never can be any danger in the humble work of the chemist judging for himself the right remedy for slight symptoms or common complaints.*"

The campaign of the Medical Defence and Medical Alliance Associations has embraced in its operations unqualified practice of every description. In 1877 the East London Medical Defence Association obtained its first conviction under "The Births and Deaths Registration Act." A practitioner in Southwark was fined £5 and costs for signing a death certificate in a case which he had not seen, but which had been attended by his unqualified assistant. The charge was brought under sub-section 2 of the 20th section of the Act, and sub-sections 2 and 4 of the 40th section. The latter state "that any person who wilfully makes a false certificate or declaration under or for the purposes of this Act, or knowing any such certificate, declaration, or order to be false or forged, issues the same as true, or gives or sends the same as true, to any person," or (sub-section 4) "makes any false statement with intent to have the same entered in any register of births or deaths, shall, for each offence, be liable, on summary conviction," to a penalty not exceeding £10, and, on conviction on indictment, to a fine or to imprisonment, with or without hard labour, for a term not exceeding two years, or to a penal servitude for a period not exceeding ten years." The practitioner had attached his name to the certificate, with all the blanks filled in, including the statement that he had attended the patient, and that the patient had been last seen by him on a particular day. If he had confined himself to stating the cause of death to the best of his knowledge and belief he would not have been liable.

Countenance was given by the Association to the prosecution of a practitioner at the East End of London by the husband of a patient who had died from exhaustion from protracted labour, and had been attended by two unqualified assistants—having been seen only once, during a labour extending over two days and a-half, by the practitioner himself. The action was brought to recover £150 damages. Delivery was effected by means of the forceps, applied

by the assistants, one of whom was a medical student in his fourth year at the Hospital. Verdict was given in favour of the defendant, and the judge spoke in very favourable terms of the behaviour of the assistants. In commenting on this case, the *Lancet* (June 16, 1876) made the following pertinent remarks:—"A practitioner who undertakes to attend 300 or 400 cases of midwifery a-year cannot attend them personally and long survive to tell his own experience. It would be an instructive thing, and would soon lead to an alteration in the law affecting midwifery, if we could have particulars of one year's cases under such a system. Meantime, the law which would deal severely with a parish medical officer who should allow his unqualified assistant to attend almost entirely an unnatural labour in a pauper, extending over nearly three days, and then end it with forceps—simply on the ground of contract—has no remedy for a private patient so treated. Perhaps gentlemen who undertake 300 or 400 cases a-year contract with their patients that the assistant is to attend jointly with themselves. If so there is nothing in the present law to prevent such an arrangement. But we put it to all respectable practitioners whether it is fair to themselves, to the reputation of medicine, or to the public, to undertake engagements by which the most anxious and difficult cases and duties are practically and inevitably left to unqualified assistants. If such cases may be left to them, what cases need the judgment and the skill which are roughly guaranteed by a diploma?" Several convictions have been obtained in the police courts under the 40th section of the Medical Act of 1858, in cases in which unqualified persons have taken titles implying that they were recognised by law as physicians, surgeons, or licentiates in medicine and surgery, or practitioners of medicine, or apothecaries. The following persons were convicted in 1876:—Thomas Spiller, of 189, High-street, Shadwell, who had painted the name "Dr. Walton" on his front door and on a board inside his window, was fined £20, and £2 4s. 6d. costs. A person named Balls, practising as a surgeon, in Bermondsey, and formerly assistant to a surgeon (then deceased) named Richmond, sported a door-plate with the inscription "Mr. T. C. Balls (from Richmond's), surgeon, and was fined £5 and costs. A chemist named S. H. Witherington, 410, Wandsworth-road, was fined by the magistrate £15 and costs for falsely pretending to be a "doctor" and a "surgeon." Mr. Swallow, of Kensal-green, holding a title from the University of Philadelphia, was

convicted and fined by Mr. Paget £5 and costs, but gave notice of appeal. Dr. Kahn, of Sidmouth-street, Gray's Inn-road, who held a certificate from a College in the United States, and had placed on his door "Dr. Kahn, U.S.," was fined £5. Several batches of Manchester quacks were successfully prosecuted and fined amounts varying from £5 to £20. Orders were also obtained for the wholesale destruction of their immoral handbills and disgusting pamphlets. Thomas Grimshaw, of Bolton, was fined £10 and costs for practising as Dr. Shaw and Co. H. T. Lewis, of 102, Wardour-street, was fined £20 and £1 costs for taking the title of Dr. Bell, a practitioner long deceased, and prescribing in his name. J. T. Young, who inserted an advertisement in the *Essex Newsman*, calling himself physician and surgeon, and had been previously convicted at Ipswich, was fined £15 and £5 costs. The following week the same person was convicted and fined £20 under the Apothecaries Act. "Dr. Ambrose" and "Dr. Clarke" were imprisoned in Jedburgh Gaol for disseminating handbills containing puffs of quack medicines, with testimonials from persons alleged to have been cured, and selling the medicines (which proved to be very different from what it was pretended that they were), sometimes for as much as 25s. a bottle. In Ireland a travelling quack, who frightened people into buying his nostrums by telling them that they had a new disease called "wolf on the liver," was sent to prison for twelve months. "Such," says the Medical Directory, "has ever been the fate of our great discoverers." In 1877 the herd of Birmingham quack doctors was prosecuted successfully, action being taken under both Acts. Robert Foulds, M.D., U.S., and "Eclectic Physician," was prosecuted at Bolton, and fined £5 and costs. At Hull two herbalists and medical practitioners holding Philadelphia diplomas were proceeded against under the Medical Act, and a £20 penalty was inflicted in each case. A quack named Key, at Birmingham, was fined £20 and costs, under the Medical Act, for appending the letters M.R.C.P.L.A., and charging a guinea for advice which was not wanted and medicine which was unsuitable.

On the other hand, a few cases have been unsuccessful. In 1877, "Dr. Thornton," the possessor of an American Eclectic Diploma, successfully appealed against a decision of the magistrate who had rejected his diploma, and inflicted a penalty under the Medical Act. Thornton had over his door "Dr. Thornton,

Member of the Eclectic Medical College, Pennsylvania." The case of Carpenter *v.* Hamilton—John Hamilton, "Doctor of Medicine of the Metropolitan Medical College of New York"—terminated in a verdict for the defendant. James Brown Dixon, LL.D., U.S., 1857, Doctor in Dental Surgery, 1845, was prosecuted by the Medical Alliance Association at the Thames Police Court for the unlawful use of the title of Doctor of Medicine. Dixon had on his window, "Homœopathic Pharmacy." Mr. Lushington, who tried the case, was of opinion that there was no wilful falsity, dismissed the summons, and refused to grant a case for an appeal.

Several convictions have been obtained under the Apothecaries Act. In 1876 the case of the chemist, Witherington, was tried before Baron Pollock and a special jury. He had visited people at their own houses, prescribed and provided medicines. He pleaded in his defence that he had only acted as an assistant to a properly qualified surgeon. He was fined £20. In 1877 a homœopathist, named Thomas Howard, of Accrington, was fined £20 for acting as an apothecary. Three herbalists at Birmingham were compelled to pay the penalty. Shepperley's case, when tried at Nottingham, appeared to be stronger than it did in the higher Court in London. In addition to the advice and medicine given to the detective, he had prescribed sarsaparilla for pimples on the face, gallic acid dissolved in water, with another acid, to a female suffering from menorrhagia, and stated that he had been in the habit of giving simple remedies for simple complaints. The judge said he had done much more than prepare, compound, dispense, and vend, as was permitted to chemists by the 28th section of the Apothecaries Act. Judgment was given against him for £20, with leave to appeal. The Sunderland branch of the Medical Defence Association obtained a conviction in the County Court in December, 1876, against John Conlan, unqualified practitioner. The defendant had carried on practice in Sunderland for several years. He was fined £20 and costs.

The manœuvres to which unqualified practitioners occasionally have recourse are well illustrated by the case of John William Foster, of Bromley. The defendant had practised at Bromley for twelve years, and for two years had styled himself "John Foster, L.S.A." Under this designation he had certificates of his patients' deaths registered, had given evidence in the coroner's court, made

*post mortem* examinations, and taken fees for the same. His name appeared in the Medical Directory, and the same name was found in the Medical Register, with the address, Farnsfield, Notts. The East London Association discovered that the real John Foster had been dead for two years, and that his name had not been erased from the Register. Proceedings were instituted under the Medical Act, and the full penalty of £20 and costs were inflicted.

This brief record would alone suffice to show the necessity which exists for the more effectual suppression of unqualified practice, but there is a far blacker account which has not yet been set down. If the mischief wrought to society by unqualified practitioners, herbalists, bone setters, cancer curers, and advertising quacks, could be rightly estimated, there would be an end to the indifference and apathy of the Legislature and the public. Unfortunately the public generally are profoundly ignorant of medical affairs, and of the knowledge requisite for the safe practice of physic. Many are still imbued with ideas akin to those which existed with more reason in the time of Henry VIII., and which led to the passing of an Act, the 34–35 Hen. VIII., to curtail the powers of the Company and Fellowship of Surgeons. "Having small cunning" and "minding onely their own lucres," "the persons of the Craft of Surgeons took great sums of money from their Patients, but did little therefore, but did oftentimes impair and hurt their Patients rather than do them good." Yet they were in the habit of suing, vexing, and troubling divers honest persons, as well men as women "whom God hath endued with the knowledge of the nature, kind, and operation of certain Herbs, Roots, and Waters, and the using and ministering of them to such as were pained with customable diseases." One merit at least these gifted individuals possessed—They "took nothing for their pains or cunning, but ministered to poor people onely for neighbourhood and God's sake and of pity and charity." The idea of divine inspiration of herbalists and quack doctors must still linger, but unfortunately the conditions of their ministrations are greatly changed. Neighbourhood, pity, and charity have been exchanged for their opposites, without impairing the faith, or rather diminishing the credulity of their patrons. The extreme facility with which the poorer classes entrust their own lives and limbs, and the lives and limbs of their children, to uneducated herbalists, bone setters, and cancer curers, and with which the higher classes resort to the dens of infamy and extortion of the

advertising quacks, argues either blind belief in inborn medical knowledge and skill, or utter ignorance of the qualifications needed by practitioners of medicine. Some, no doubt, resort to quacks believing them to have received a medical education, or to possess a medical qualification. Those who resort to them with their eyes open should study the records of coroners' inquests at which herbalists are constantly figuring, Dr. Wharton Hood's *brochure* on Bone Setting, and the pages of such sympathetic exposures as "Revelations of Quacks and Quackery," by Mr. Courtenay (or "Detector"). As a small contribution to the information of the public we append a sample or two of the range of operations of the species of unqalified practitioners to whom we have alluded. In June, 1875, an inquest was held at Marshfield on the body of a young man who had died of consumption, and had been attended by a herbalist, named Bigwood. It would be unfair to attribute the result to Bigwood's ministrations, but his own account of himself is so instructive in showing what rubbish will be swallowed and digested, physicially and morally, by certain classes of the public, that we give it in full. He said—"I am a 'licensed botanist,' residing at Corsham. I was first requested to visit the deceased on May 11th. He was then down stairs sitting in a chair. I told him I thought I might, but it would be like raising the dead from the grave; but the deceased wished me to give him a trial. I then asked him if he was under a doctor. He said yes; but the doctor says he can do no more for me. I told him I would give him a trial; but I did not think that I should raise him, for he had no blood in him. I told him that his liver did not throw any blood, and that it was very dry. I thought by his countenance that his liver did not throw any blood, as he looked as sallow as death. I sent him a bottle of medicine next day which contained seven different sorts of herbs. They were herbs governed by the sun. These herbs strengthen the heart, which I wished to do. I work on a botanist scale of astrology. I send medicine all over the country. I consider that my licence allows me to do so. When I advertise, I advertise for fits. I do not advertise for consumption, for I know it is no good. I use a hundred different sort of herbs. I give medicine for every part of the body where it is afflicted. I use the Government stamp on all bottles of medicine sent out, no matter what are the contents. The medicine I gave him was for the chest, heart, lungs, and liver. I sent him four bottles of medicine and a box of twenty pills—the

pills to be taken with the medicine. The pills were made with the same herbs as the mixture, ground into powder with cayenne, hickory-picry, and rhubarb, which I buy of a chemist at Corsham. I ask for hickory-picry, for I know no other name for it. I have raised men very near from the grave with that medicine and pills. I have been practising twelve years. I judge all complaints by astronomy. If I have the date of a man's birth, if he lived in London and sent to Corsham to tell me he was bad, I could tell what his complaint was, and what to prescribe for him. This I have done many times and made many cures. The deceased was born January 6th, 1852 (I do not know the hour and minute). The sun was in opposition sign with the stomach when he was born; that showed that the sun stood in afflicted sign to the body. The moon rules the liver, and that is where his disease was, and that is what he died from. I never had a patient die that had been taking my medicine since I have been in practice. If they fall worse, I tell them they must get a doctor. By watching the movements of the heavens I can tell when to call in an experimental medical man, or there would be many such caddies as this, as I would not be responsible for their lives unto the end without further counsel—I would not be responsible as there would be upsets about it. I do not confine women or do bone-setting." In returning a verdict of death from natural causes, the jury requested the coroner to censure the herbalist severely, and tell him that he had had a very narrow escape of being committed to Gloucester gaol on a charge of manslaughter.

A painfully fatal case, resulting from the reckless and criminal ignorance of a cancer curer, came under the author's immediate observation. He was sent for by a practitioner one evening to an unusual case of femoral hernia. The patient was a Spanish sailor who had been suffering from a swelling in his right groin for three weeks—most probably, at the outset, a reducible rupture. He had been attended by an old woman, who was a professed cancer curer, and who had applied to the tumour a paste composed of quick lime. The effect of the application had been to char and destroy all the tissues over and covering the descended bowel, and to blacken the surrounding parts. When the destructive process reached the bowel it began to protrude, and continued to do so till two or three feet of intestine had escaped from the abdomen. When the author saw him he was in great agony and supporting the exposed intestines, which

were black and congested. Chloroform was administered, and with some difficulty, in consequence of the discoloration of the tissues and the bulk of the hernial bowel; Gimbernat's ligament was found and cautiously divided, together with some fibres of Hey's ligament. Inch by inch the bowel was pressed back into the abdomen—a troublesome procedure, which occupied ten minutes. The patient, as might have been anticipated, died the following day from exhaustion. The cancer curer escaped punishment.

The exposures and prosecutions of recent years have driven some of the gang of swindlers known as the "Obscene Quacks" and "Advertising Quacks" out of the Metropolis, and seriously crippled their operations elsewhere. All respectable journals in London have been persuaded to exclude advertisements of their vile pamphlets, and to forego a source of revenue of which the proprietors of the papers, when informed of the nature of the traffic which the advertisements upheld, were heartily ashamed. Advertisements of this stamp, which have now found a precarious refuge in country newspapers, were inserted with such headings as "Health and Manly Vigour," "Nervous Debility and Nervous Affections," "Health, its Restoration and Happy Marriages," "Secret Infirmities," "Confidential Consultations," "Health and Manhood Restored in a few days," "The Private Medical Instructor," "The New Aristotle," "The Silent Friend," "Debility, its Cause and Cure," "The Medical Adviser," "The Friend in Need," "On the Self-cure of Nervous Debility," "Medical Work on Marriage," "Self-control," "A Warning Voice," "The Tonic Elixir," "Self-cure without Medicine," "Sir Astley Cooper's Vital Restorative," "Vigour Guaranteed in Fourteen Days," "Self-adjusting Curative," &c., &c. The impostors and swindlers who lay these traps for the unwary are frequently connected with each other by family ties, or belong to the same gang of thieves as partners in a firm, decoys or accomplices. The system pursued is in all cases more or less the same. Two classes of persons resort to them. The first class comprises those who are really suffering from affections which they are anxious to conceal from their friends, and who are allured by ostentatious announcements of secrecy, coupled with promises of a speedy cure held out in the handbills and pamphlets distributed in the public thoroughfares or disseminated through the post. To extort as much plunder as possible from this class, dreadful descriptions, illustrated with wax models and plates, are given at

the first consultation of the dire results which would follow from neglect or treatment inexpensively with mercury, and the only alternative held out is a costly preparation of gold. Anxious for secrecy and a speedy cure, and desirous of avoiding the dreadful consequences of delay and treatment with mercury, the dupes are persuaded into paying large fees to the quack. In return for the outlay they are rewarded with a supply of medicines of a harmless character, from which they naturally derive no advantage. Further sums are then extorted by more lies or threats of exposure. By these means patients have sometimes been kept on for years, fleeced of hundreds, and perhaps thousands, of pounds, without benefit, when ten or twenty pounds paid to a regular medical practitioner would have resulted in an early cure. The other class consists of nervous or hypochondriacal persons who, through perusal of the pseudo-medical publications of the advertising quacks, have become firmly persuaded that they are the subjects of an exhausting complaint which is undermining their constitutions, and rendering them unfit for society, as well as incapable of conjugal duties. Similar tactics, with a little variation, are pursued, curative appliances and silver lotions supplement or replace the preparations of gold, and the patients are kept in attendance by the excitement of false fears and delusive expectations. The amount of the extortions of the quacks has been estimated from calculations of the sum formerly spent in advertisements in the London papers. Thus it has been calculated that one firm alone paid to one paper about £55 19s. a week, or £2,890 a year. When the sums paid to other papers were added, a total of £10,000 a year was reached, and to this sum must be added the cost of books and handbills, the maintenance of a costly establishment and equipages. On this basis, and following the principle that a tradesman reckons his profits at at least twice his expenditure on advertising, the profits were estimated at about £30,000 a year. Now that the iron age has succeeded the golden age, we suspect that the mine of wealth which the quacks discovered in the deep stratum of the credulity of the British public must be in process of exhaustion. One peculiarity of these quacks ought to be mentioned—their assumption of the names of the most honoured and distinguished of English Physicians and Surgeons, and sometimes of celebrated foreign practitioners—Harvey and Hunter, Hooper, Carpenter, Watson, and Ricord.

It is needless to enter further into this degrading chapter in the

history of human nature. Fortunately these harpies and pests of society occasionally overreach themselves by displaying too manifestly their greed of gain, and are compelled by threats of legal proceedings to disgorge a portion of the spoil. Fortunately a thorough exposure now and then occurs, and a Dr. Henery receives his due at the hands of the law in a just sentence of imprisonment and hard labour. Happily there are writers in the Press and Defence Associations bent on putting an end to the iniquitous traffic. *The Irish Builder* of October 1st, 1871, said—"These so-called medical doctors are a gang of miscreants one and all; but the difficulty of hunting them down exists in the fact that they are always changing their names or places of abode. We have spent some time in tracking these monsters in human shape, and we have been on their trail in London, Glasgow, Edinburgh, and Dublin.

> 'Like the Indian in the wild wood,
> We've dogged their track of slime,
> And we'll shake the Gaza pillars yet
> Of their godless mammon shrine.'"

Note.—A recent discussion in the House of Commons on Dr. Lush's Bill for the amendment of the Medical Act elicited very clearly the views of those who maintain the principle of liberty of choice of medical advice for the British subject. Mr. Sergeant Simon "protested against protection for any profession. Whilst he did not deny that it was the duty of Parliament in the case of medical practitioners and members of other professions to prescribe the standard of qualification, he protested against Parliament being called on to interfere in order to guard and protect special interests. They should have regard to the public and to the public only; and it appeared to him that the measure was one not introduced in the interests of the public, nor because there was a growing wish for it in the medical profession itself, but because perhaps of the views of some narrow portion of those who pursued that noble calling. It was to be deplored that the men belonging to this noble profession whose province was that of benevolence should seek, as they were doing, for protection. He admitted that Parliament had the right, perhaps it was its duty, to supply the standard of qualification for medical as well as for other practitioners, and, so far as that went, to hold up that standard to the public and to say—'Through legislation these are qualified persons: we recommend them to you if you require medical service or medical aid.' But if Parliament went beyond that it infringed the rights of the public to fair choice in the selection of a medical man. What would be the consequence of passing the provision in the honourable member's Bill with regard to the certificate of death? Supposing he did not believe in the present system of medical practice, he could not understand why he should be prevented from employing some person in whom he had faith. There had been more than one attempt on the

part of a certain section of the medical profession to exclude homœopathists from the profession and from the benefit of the Act of 1858. It was in consequence of that dead set that clauses were introduced into the Act of 1858 to prevent injustice that could be done to the public through the exclusion of the homœopathic system. Notwithstanding the opposition it had met with, and the prejudice it had had to encounter from medical men and others, homœopathy had made great headway, and it had had great influence upon medical practice. There was no longer the system in vogue of drugging people and forcing medicine down people's throats which formerly prevailed; and why? Because homœopathy had proved that all this treatment with strong doses of purging was not only wrong, but positively injurious. He wanted to know what right Parliament had to stand in his way and say he should not consult a herbalist. Supposing he had a broken leg, if he had a compound fracture, or a serious dislocation, and he desired to go to a bone-setter who had done some wonderful things, what right had Parliament to say he should not consult that bone-setter. That was just what the present Bill asked Parliament to do. He asked whether, under the twenty-eighth section of the Bill, it would not be at least hazardous, if not illegal, for a bone-setter or herbalist to attend patients? He was speaking solely in the interests of the public, and he knew that a large number of persons did consult such men with great benefit. There was an association amongst herbalists which prescribed a certain standard of examination. They passed examinations as qualified practitioners amongst themselves, and even without that he thought that if he wished to call in a blacksmith to attend him it was not right that Parliament should prevent him from doing so. A large number of the working classes did not believe in medical men, but they believed in the herbalist, and therefore employed him. Many friendly societies, of which working men were members, employed herbalists. Herbalists did not only attend the working class, but also persons in a higher station of life. He had known persons in the highest station of life employ bone-setters who had cured bruises and ailments which the ordinary practitioner had failed to cure. There was another point to which he wished to refer. Dr. Lush said that it was not right that these persons practising without legal qualification should certify death. That was a hardship, for it was tantamount to telling the public that they should not employ such men as herbalists and bone-setters."

Mr. Burt had no doubt that a great deal of mischief was done to the community by incompetent persons attempting to cure disease, and if a Bill could be passed that would tend to exclude them and them only, such a Bill would no doubt confer a great public service. If anything could be done to prevent what might be called the birds of passage flitting about the country and living on the gullibility of the public, considerable service would be done. But the Bill of the hon. and learned member would go a great deal further. He was acquainted with many persons practising herbalism, and they did very great service to the community. Within a hundred yards of his own dwelling at Newcastle there lived a man who had practised this system for more than twenty-five years. He had never solicited the public, he had never advertised, but he had made good cures, and people had come to him because they had

found that they could derive benefit from his treatment. Such men were to be found in many parts of the country, and there was no pretence for saying that there was the slightest imposition on the part of such men. They did not lay claim to any medical education; many of them had never seen the inside or outside of a college, but they had a very peculiar aptitude, and having devoted many years to the study of the subject, they had succeeded in effecting the cure of diseases. When a poor man was ill he wanted to be cured, and did not care whether that was done by a man who was medically educated or by an illiterate man. Many working men through their friendly societies and otherwise employed herbalists.

Mr. Cowper Temple said "he did not think at the present day that Parliament would make any attempt to put down herbalists in the manner in which so-called witches were put down ages ago. There were no doubt a large number of gentlemen in the profession who looked upon homœopathy and bone-setting as very noxious things, but he did not think that many in the house would support the view that herbalists and persons of that description should be prosecuted. The public should be left to say whether they liked herbalists or not. Everyone in this land was free to be a heretic in religion, and so he trusted it would be in matters relating to the health of the body. He trusted that no Bill would ever be passed by Parliament which would interfere with the individual right of every person to try to be cured of disease in the manner they believed to suit them best, or that any attempt would be made to bring the public under compulsion to be dealt with even by so important a body as the medical profession. What it was right to do in this direction was already done under the existing law—namely, that no person who might be designated a quack was entitled by law to adopt any name or title which would lead the public to believe that he was an authorised practitioner. No person should be prevented from prescribing because he had not a legal qualification. This was equally true with regard to chemists and druggists. It would be a great hardship that persons who could not afford or do not care to pay the fee of a registered medical practitioner should be debarred from obtaining aid from chemists and druggists. It might perhaps be foolish of them to prefer the unqualified man, but it was undoubtedly the right of the people to go to whom they pleased for aid, so long as no attempt was made to mislead them concerning the qualifications of the persons whom they consulted."

Dr. O'Leary said "he knew many poor men who earned their bread honestly and industriously in collecting herbs and selling them, and in putting minerals together with the intention of effecting cures. He felt a deep sympathy for such men. The remedies they adopted were simple, but they frequently produced a cure, and the most eminent medical man could do no more. Two-thirds of the cures now effected arose from the confidence which the patient felt in his medical adviser, and if the same result was produced by the confidence reposed by the poorer classes in herbalists, no objection ought to be raised, as all the good they could desire was accomplished."—*British Medical Journal Report of Discussion in House of Commons*, March 12, 1879.

Before the Medical Act of 1858 was passed by Parliament the grossest anomalies prevailed throughout the United Kingdom in the relative position of the Licensing Bodies to each other, and in the privileges of the various orders of Medical Practitioners. England, Ireland and Scotland had different interests. The Colleges waged war against the Universities, and at the same time were at variance both with the Apothecaries' Societies and with each other. Exclusive privileges were possessed by the Medical Corporations, and special local jurisdictions in cities and provinces were assigned to them, which none could invade without being exposed to a rigorous prosecution. It would be foreign to the purposes of this Essay to discourse at large on all the existing monopolies, but a summary is advisable to point the advantages derived from the Act of 1858. Graduates of Irish and Scotch Universities had no legal right to practise in England, notwithstanding the high sounding and comprehensive terms in which their diplomas were couched. On the other hand, graduates of the English Universities could practise in any part of England and Wales but London and seven miles round, in Scotland, and in Ireland with the exception of Dublin. Graduates of the Scotch and Irish Universities desirous of practising in England and Wales were obliged either to graduate again at an English University, or to become Licentiates of the English College of Physicians. This latter body attempted, on several occasions, to put down all who practised in England as physicians not being Fellows or Licentiates of the College, or graduates of the English Universities. In London, and within seven miles from it, the London College of Physicians exercised a special jurisdiction. None but its own Fellows and Licentiates could legally practise within these bounds as physicians, but courtesy generally extended the privilege to graduates of Oxford and Cambridge. Graduates of the Universities of Durham and London, of whom considerable jealousy existed, were entirely excluded. The only safeguards against prosecution in cases of an infringement of the law were the expensive nature of legal proceedings, and the fact that convictions could not be obtained unless it could be clearly proved that the practice complained of was medical, and not surgical or in the discharge of the proper functions of an apothecary. Similarly in Dublin, the King and Queen's College of Physicians possessed the exclusive privilege of granting licences to practise medicine within the city

and seven miles of it. None but its Licentiates could hold the office of physician to a county infirmary of Ireland, and none but Licentiates of the English College of Physicians shared with them the privilege of appointment as physician to the Irish gaols and prisons. None but graduates in physic of Oxford, Cambridge, London, and Dublin could practise as physicians in the rest of Ireland, unless licensed by the College. Scotch graduates were excluded altogether. In Scotland the Faculty of Physicians and Surgeons of Glasgow held, up to 1850, an exclusive jurisdiction over the Counties of Lanark, Renfrew, Ayr, and Burgh, and the Barony of Dumbarton. The Royal College of Surgeons of Edinburgh held similar sway over the Three Lothians, Fife, Roxburgh, Berwick, Selkirk, and Peebles, and possessed the power of licensing in medicine and pharmacy, as well as in surgery. The Edinburgh College of Physicians had limited privileges in Edinburgh and its district. It could exclude English and Irish physicians, except graduates of the University of London, but it could not restrain from practice Doctors of Medicine of the Scotch Universities. As a last illustration of monopoly, the position of the Apothecaries' Societies in London and Dublin may be quoted. No one could dispense medicines for his patients in England or in Ireland unless he had served a five years' apprenticeship to an apothecary, and had been examined by the Apothecaries' Society in the division of the kingdom to which he belonged, and had paid the fee for the diploma of the Society. Graduates of Universities were virtually excluded from acting as general practitioners in England or Ireland, unless they had been apprenticed and were in a position to take the licence of the English or Irish Apothecaries' Society, and this exclusion fell with the greatest severity on the graduates of the Scotch Universities, who would otherwise have become general practitioners in England. Finally, an English apothecary could not practise in Ireland without submitting to another examination and purchasing a fresh diploma from the Irish Company, and an Irish apothecary could not practise in England without paying similar penalties for the benefit of the Apothecaries' Society in London.

These grievances and inequalities, the evils of a rampant quackery and illegal practice, which ever evaded the arm of the law—the entire absence of uniformity in the regulations for medical study—the notorious laxity and inefficiency of the examinations

held by several of the Licensing Corporations—the existence of several pharmacopœias—the want of ordinary culture in many who entered the medical profession—the depressed condition of practitioners engaged in certain departments of the public service—the variety in the value of diplomas—the jealousy, antipathies, and hostilities engendered in the ranks of the profession produced a cry for medical reform which became at last too strong for the resistance even of the House of Commons. After some unsuccessful and abandoned efforts at legislation, the Act of 1858 was passed. Reference to the journals of the period will show that the measure was generally hailed with satisfaction, and that it was expected to prove an efficient remedy for the complaints which affected the medical body politic. It has been the fashion of later years to deride the Medical Act of 1858, to decry and sneer at the General Medical Council which it created. It is true that the extreme of expectation has not been fulfilled, but neither is the extreme of disapprobation to be justified. Much, it may truthfully be said very much, has been accomplished within the twenty years of the existence of the Council ; and much, very much, remains to be accomplished. The contemplation of the heights which must yet be scaled is apt to lead to an under-estimate of the elevations already reached, and to a want of appreciation and contempt for the labours expended in ascending them. A review of the objects of the Medical Act of 1858, and of the work of the Council under the provisions of the Act, will both ensure justice being done to the distinguished members of the profession who have had seats in the Council Chamber, and enable us more clearly to perceive what improvements future legislation should secure for the profession.

*The objects aimed at by the Medical Act* were mainly two in number. The first great object of the Act was *to enable the public to distinguish qualified from unqualified practitioners.* In point of fact this is the only reason assigned in the preamble for the provisions of the Act, probably because the public weal is the end and aim of all Parliamentary legislation. The means by which the object was ordained to be carried out consisted in the establishment of a "Medical Register" containing the names and qualifications of medical practitioners throughout the kingdom. The fee for a primary registration is now £5; additional qualifications may be entered on the Register for 5s. The first advantage of registration

is that it gives to registered practitioners the right, *according to their qualifications*, to practise medicine or surgery, or medicine and surgery as the case may be, in any part of Her Majesty's dominions. By this provision the exclusive privileges and local jurisdictions of the Corporations which have been detailed have been virtually swept away, and the barriers which separated the three kingdoms from each other have been effectually broken down. It led at once to the Colleges of Physicians in London and Edinburgh throwing open their doors to the general practitioner, and instituting licences enabling the holders to dispense medicines for their patients. By prescribing the separate registration of medical and surgical qualifications, the Act at least tended to confine the diplomas of the Corporations within their legitimate limits. Discussions have been necessitated in the Council with regard to the legal rights of particular Corporations, and have usually terminated, with or without the opinion of the legal advisers of the Council, in satisfactory solutions of the questions raised. It is perfectly true that the measure has not prevented medical men from practising all branches of the profession on the strength of a single qualification conferred after examination in some only of the necessary subjects of study; but it is equally true that it has been indirectly instrumental in calling attention so strongly to the anomalous and objectionable custom that no long period will elapse before fresh legislation relegates this custom to the past.

A second advantage of registration is, that it gives to registered practitioners the legal right to demand and recover, *according to their qualification or qualifications*, in any court of law, with full costs of suit, reasonable charges for professional aid, advice and visits, and the cost of any medicines or other medical and surgical appliances rendered or supplied to their patients. There are other minor advantages. Registered practitioners are exempt from serving on all juries. Certificates required by Acts now in force are not valid unless signed by a registered practitioner. Only medical men who are registered can hold appointments at the majority of public institutions.

The control of the Medical Register is a powerful weapon in the hands of the Medical Council. Any registered member of the profession guilty of infamous conduct in a professional respect can be struck off the Register, and thus the Council has it in its power to purge the profession of notorious offenders.

As a corollary to the means of distinguishing qualified from unqualified practitioners afforded to the public by the Register is the protection of the public from the imposition of those who assume titles to which they have no claim, and usurp functions for which they have no qualification. It is uncertain to what extent the Legislature was prepared to go in the suppression of unqualified practice and quackery, or what was the intention of the framers of the famous 40th clause :—"Any person who shall wilfully and falsely pretend to be, or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner or Apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a Physician or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall upon summary conviction for any such offence pay a sum not exceeding twenty pounds." The wording of the clause being ambiguous, and on the surface implying wide powers for putting down imposture, extravagant expectations were raised in the ranks of the profession. Registration Associations were formed throughout the kingdom, and the most energetic measures were adopted for the prosecution of anyone who was considered to be violating the Medical Act. The 40th clause of the Act was triumphantly adduced and interpreted as subjecting anyone who practised as a Physician, Surgeon, or Apothecary, without being registered, to a penalty of £20. This view was taken by some subacute country magistrates before whom cases were brought, and from whom conviction was obtained. Great, however, was the dismay of the Registration Associations when the decision of the Justices at the Petty Sessions of Halesworth, who had fined an individual named Pedgrift £10, was reversed in the Common Pleas, and the Court decided that the proposition—that every one who called himself Surgeon without being on the Register is liable to the penalty—could not be sustained. At the Court of Queen's Bench, moreover, in the case of Hamilton, the "Anti-registered Botanic Surgeon," Lord Chief Justice Cockburn said :—"There was nothing in the Act to prevent a person from merely practising as a Surgeon without being registered." These blows were fatal. It was evident that clause 40 had been misinterpreted, and that the £20 penalty could only be recovered from those who falsely pretended to be registered persons. The

whole fabric of prosecution fell to the ground amid widespread dissatisfaction. The reverse engendered a feeling of discontent with the Medical Act, and registration was shorn of all its previous charms. The payment of £5 for registration was denounced as an iniquitous exaction, and registration was stigmatised as a delusion and a snare. Nor was the conduct of the General Medical Council, either at the time or in subsequent years, such as to make amends for the disappointment. Seen through the medium of disappointed expectations, its achievements were few, its loquacity great, its bias towards the interests of the Corporations instead of the profession too obvious to be passed unnoticed, its policy timid and vacillating, its administration feeble, and its expenditure excessive.

The second great object of the Medical Act of 1858 was *to establish uniformity of education and examination throughout the kingdom.* "To procure a simplicity of government for the profession," wrote Mr. Simon, when he drew up the Report of the Medical Teachers' Association, "has been for longer than living memory the endeavour of all intelligent medical reformers, both primarily in order to a better conduct of medical education, and ulteriorly for the better fulfilment of our relations to the public. To promote the adoption of this measure was the main purpose with which the Medical Act of 1858, with its expensive consultative machinery"—and, let it be noted, with the express permission for the combination of Corporations for the purpose of examination—"was framed." The "expensive consultative machinery" created by the Act was a Council to be styled "The General Council of Medical Education and Registration of the United Kingdom," and Branch Councils for England, Scotland, and Ireland. The General Council is composed of one representative of each of the following Corporations:—The Royal College of Physicians of London, the Royal College of Surgeons of England, the Apothecaries' Society of London, the Universities of Oxford, Cambridge, Durham, and London, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the University of Edinburgh in combination with the University of Aberdeen, the University of Glasgow in combination with the University of St. Andrew's, the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons of Ireland, the Apothecaries' Hall of Ireland, the University of Dublin, and the Queen's University in Ireland; six persons nominated by

Her Majesty, with the advice of Her Privy Council, four being appointed for England, one for Scotland and one for Ireland, and a President elected by the General Medical Council—in all 24 persons. The members for each division of the kingdom constitute the Branch Councils for each division respectively. The President is a member of all the Branch Councils. It will be observed that the nineteen Licensing Corporations are represented in the Council by seventeen members, and the Crown by six, whilst the medical profession at large is left altogether unrepresented. It is provided in the Act that members of the Council are to be chosen for a term not exceeding five years, and to be eligible for re-appointment. Eight of the Council form a quorum. The General Council appoints an Executive Committee, which carries out the wishes of the Council in the intervals between the meetings of the Council, and a Registrar and other officers or clerks. The Act allows to the members of the Council reasonable fees for attendance, and travelling expenses.

The means provided by the Medical Act for enabling the General Medical Council to secure the great ends of establishing uniformity of education and examination throughout the kingdom, and of making education and examination efficient, were the powers furnished by the 18th, 19th, 20th, 21st, and 22nd clauses of that Act. In brief, the Medical Council was authorised to obtain returns from the Licensing Corporations of their courses of study and nature of their examinations, and to appoint visitors to attend and be present at the examinations. It might sanction and direct the conjunction of Licensing Corporations in the conduct of examinations for registrable qualifications. And in case it should appear to the Council that the course of study and examinations at any of the Licensing Corporations were inadequate and inefficient, it might represent the same to Her Majesty's Privy Council, who could suspend the right of registration in respect of the qualifications granted by the body in default. Returns from the Licensing Bodies, visitation of examinations, promotion of conjoint schemes, were the means at the disposal of the Council for favouring and securing peaceful progress towards uniformity. Representation to the Privy Council and suspension of registration were the weapons of reserve for the subjugation of refractory Corporations. It is sufficiently clear that the Council was intended to exercise control over the Corporations for the purpose of raising the

standard of medical education and examination, and promoting uniformity; and that if it could not effect these objects by persuasive means, it was to fall back upon the Privy Council for support. Before describing the results achieved by the Council in this and other directions, it will be as well to pass in review the peculiarities of the situation with which the Council had to deal, and which still retains its main characteristics.

*The cardinal defect in the so-called educational system*, and the source of many of the evils from which the profession has suffered was and, in a minor degree, still is the existence of nineteen different Corporations with independent powers of examination and issue of educational regulations. Very general has been the recognition of this defect throughout the medical profession. Articles constantly published in the journals, papers and letters, pamphlets and essays, addresses at prize distributions, reports, resolutions, and discussions of Associations, produced a remarkable unanimity of opinion in regard to the defect, and in regard to the mode in which it ought to be remedied. It was perceived that the attainment of uniformity of educational and examinational requirement under such a *régime* was well-nigh impossible. The consequence is that there does not even yet exist (to quote Mr. Simon again), "either by authority or common consent, any one set of regulations which may be cited as representing the national minimum of requirement" from candidates desiring to become general practitioners. In the place of uniformity of education, examination, and payment of fees, there are, as there long have been, different and contradictory regulations for study, diplomas of similar rank and purpose exchanged for varying sums of money and varying amounts of medical knowledge. The first and greatest evil produced by this hydra-headed government has been to keep down the standard of knowledge required from candidates for medical diplomas, and to pour into the ranks of the profession a constant stream of ill-educated and ill-qualified men. How could it be otherwise? The primary duty of Corporations, like that of individuals, naturally appears to be to prolong their existence, little as such a necessity might be recognised by the cynical statesman. But the existence of many of the Corporations, or in other words the payment of their Boards of Examiners and the defrayment of their expenses, have generally depended upon the number of candidates for their diplomas, and the number of candidates has depended to some extent upon the nature of the

examinations and the amount of the fees compared with those of rival Corporations. Would it not then be a logical conclusion from these premises, independently of experience, to expect a kind of competition of no very elevating tendency to arise between the various rival Corporations in regard to the terms on which their licences could be obtained? Vigorously as this has been denied and repudiated by some in immediate connexion with the Corporations, the impartial observer, whilst giving credit to the repudiation so far as to believe that those who governed the Corporations have not worked consciously towards the attainment of the result, must fain admit that the practical outcome of the existence of so many independent licensing bodies pecuniarily interested in obtaining candidates has been to engender competition where there should have been no competition at all. The great use of competition is to insure the production and acquisition of the best articles at the smallest cost, whereas the competition of the licensing bodies has insured the issue of a number of ill-qualified men who have had to gain their experience in actual practice at the greatest cost to the public. How cautiously, how delicately, how tentatively, must an English College have proceeded upon the path of progress in order to retain its thousands upon thousands of candidates for its diploma. How nicely must a Scotch College have adjusted its fees to the means of applicants from the other side of the Tweed and of St. George's Channel, so that, travelling expenses included, the whole cost of its licence might not exceed the cost of rival licences of similar Colleges in different divisions of the kingdom, and that the student, apprehensive or experienced of rejection in another place, might not be deterred from knocking for admittance at its hospitable, sympathetic, and cosmopolitan gate! The advocate or representative of the College may publicly deny the justice and truth of this allegation, but if the regulations were not made with the view of attracting rejected candidates, the fact remains that the low fees and the traditional (if erroneously reported) simplicity of the examinations attracted many, both from England and Ireland. The caution in adopting improvements, and the sagacity in tempering the wind to the shorn and tender lambs displayed in times past, do not necessarily imply, as some have asserted, any moral obliquity in the managing Councils of the Corporations thus placed in competition with each other, for their policy may have been the insensible as it certainly has been the necessary and injurious

offspring of a bad system, and may have been supported by reasons of another kind quite convincing to those who used and adopted them. For instance, it has been most plausibly urged by examiners and others of high professional repute and unimpeachable integrity, that examinations could not be increased in severity without diminishing inconveniently the supply of medical men for the poorer classes and for the Local Government medical services. There must be, they say, practitioners of a lower stamp, of the uncultivated but "rough and ready type," who will live in the wilds and in the slums, and be content to earn a very modest competency out of the multiplication of the smaller coin. The fallacy of this argument consists in the insufficiency of the defence thus set up to cover the notorious failure of examinations in time past to exclude badly educated candidates. The indictment is that examiners passed, not the "rough and ready," but others who, whether rough or not, were not ready, who did not possess the practical aptitude and skill implied in the description, and who would have been excluded but for the inevitable tenderness which had been the silent but sure effect of the struggle for life imposed upon the Corporations by the very conditions of their existence. Necessity to supply such a grade for the service of the poorer classes! The necessity was that such a supply should cease and determine. For what was the effect? To overcrowd the ranks of the profession, to lower the wages of professional advice and assistance, to encourage quackery, and to produce the demand, whilst hindering the accomplishment, of Poor Law medical reform. Parsimonious guardians of the Poor Law and shrewd committees of hospitals have profited by the keen competition and jealousy of the struggling members of our profession to requite inadequately, or not at all, services at least as valuable as those of the paid architect and paid lawyer, and, to compare small things with great, comparatively as advantageous (*perceptibly* more advantageous) for this world as those of the recompensed chaplain are for the next. Raise the standard of preliminary and medical education and examination, and a natural cure is applied to many of the hardships and much of the injustice for which remedies have been sought or recommended through the action of the Legislature or by the adoption of trades union tactics. Another inconvenience has been the preservation—indeed, it may be said, the increase—of professional titles, representing different amounts of knowledge and degrees of severity of examination,

and expressed by a variety of letters, bewildering the minds of the uninitiated public, and occasioning a fixed contempt for all alphabetical appendages. Through the existence of so many titles a vast amount of jealousy has been introduced into the ranks of the profession, whilst interminable discussions have gone on in the journals as to the right of Licentiates of the Colleges of Physicians and Bachelors of Medicine to the designation of Doctor. These are minor inconveniences. The greatest injury and injustice have been inflicted by the circumstance that diplomas awarded after examination in a few of the subjects of medical education have conferred the privileges of registration and the status which should have belonged only to fully-qualified practitioners. But for the independence of the Corporations and the closeness of the constitutions of some among their number, which have rendered them but little sensible to the progress or expression of opinion in the outer world, these glaring evils would have been removed years before the Medical Council came into existence.

To whatever fair criticism the Medical Council itself is amenable on the score of loquacity, feebleness, and expense, it must be acknowledged that the twenty-one years of its career show a record of good and useful work. Its achievements have been considerable, and the profession have reason to be proud of the speeches of some of its members, the advances which it has been instrumental in effecting, and the position which the Council has gained in connexion with the Government of the country. Anyone who compares the present state of the examinations of the Corporations with what they were in 1858, must admit that great improvements have been effected. The advances appear small because so much remains to be accomplished, and the progress appears slow because the critics of the Council are intimately acquainted with the ground yet to be traversed. *A review of the work of the Council* may be appropriately introduced in this place.

1. The General Medical Council has published a Register. The earliest form was not convenient, and the original price, fixed at 7s. 6d., was found to be too high, and was reduced, in the second year of the Council, to 4s. To none of its functions has the Council given more care than to its judicial functions, and in none has it acquitted itself better. In deciding what names should be struck off the Register, what retained, and what restored, the Council has acted with sound judgment, discrimination,

firmness, clemency, and forbearance. Names have been erased from the Register, among other things, for perjury, for forgery, for misdemeanour, for false statements before the Examining Authorities, for personation at examination, for obtaining diplomas fraudulently, trafficking in degrees, and for other kinds of infamous conduct in a professional respect. One notorious offender was removed for keeping an anatomical museum containing waxworks of a disgusting character, after having been previously struck off the list of members of the College of Surgeons of England. The Register is published annually.

2. The General Medical Council has appointed Registrars. At the commencement of the sittings of the Council a physician was appointed Registrar at a salary of £500 a year, and was not required to devote his whole time to the office. When in 1876 the first Registrar retired a lay Registrar was appointed, and, though we should have preferred to see a medical man inducted into the office—for the profession have not too many appointments to which they can aspire—we are bound to admit that, since the present Registrar entered on his duties, the Register has been improved, and made more correct by the elimination of the names of deceased practitioners.

3. The General Medical Council has acted on the powers conferred by clause 54 of the Medical Act of 1858, and has published a British Pharmacopœia. The compilation of the first edition was entrusted to a Committee, which divided itself into three Sub-Committees meeting in London, Edinburgh, and Dublin, respectively, and acting in concert with delegates from the Colleges of Physicians and the Pharmaceutical Society, analytical chemists, pharmaceutical chemists, and botanical referees. After immense expenditure of time, labour, and money, at the end of four years the manuscript was laid before the Council, and adopted as "The British Pharmacopœia." It was then discovered that the Council did not possess the requisite powers for holding a copyright, and that it could not supersede existing pharmacopœias. A short Act of Parliament was necessary to establish the rights of the Council, and was obtained at the end of the Parliamentary session of 1862. The Pharmacopœia Committee had altered the weights to be employed, and strong protests were made against the alteration. A special meeting of the Council was called to consider the subject, and the weights were again altered. In the fifth year the Executive

Committee made arrangements for printing the work, and in the sixth year (1864), the Pharmacopœia was published both in an octavo and in a duodecimo edition. It gave general dissatisfaction, and contained errors sufficient to make it necessary for the Council to prepare a new edition. The cumbrous machinery employed in the production of the first edition was not again brought into requisition. Mr. Warrington, of the Apothecaries' Hall, and Dr. Redwood, of the Pharmaceutical Society, were requested to undertake the preparation of the next edition, under the supervision of the Pharmacopœia Committee. In 1867—or the ninth year of toil—the Committee was able to announce the completion of its labours. The Pharmacopœia was published and was well received. The National Pharmacopœia had been produced at the end of nine years at a cost of about £1,000 a year. From 1867 to 1876 more than 29,000 copies of the Pharmacopœia were sold, and the average sale now exceeds 1,000 copies a year. Up to the time of the report of the Pharmacopœia Committee in 1877, the gross sale had reached 30,680 copies. Re-issues were ordered in 1869, 1874, and 1877.

4. The General Medical Council has instituted a preliminary examination in the subjects of general education for medical students, has defined the subjects of the examination, and has issued a list of the bodies from whom certificates will be received, and of the examinations which may be accepted as equivalent or superior to the ordained preliminary. Examinations in general education were held by some of the Licensing Bodies before the Council came into existence. It is said that a preliminary of the kind had been carried on for years at the Royal College of Surgeons in Ireland, and similar examinations were conducted by the Universities. The changes effected by the Council have been to make the examination preliminary to professional study, and to make it obligatory on all intending to become medical students. The Council has laid particular stress on the regulation that the examination shall in all cases, and at all the Licensing Bodies, be strictly preliminary to the commencement of medical study, and to registration as a medical student. All motions brought forward in the Council to secure relaxation of this regulation have been negatived, and the Council has had much trouble in reducing some of the Licensing Corporations to conformity. Even now it is averred that some of the Irish and even Scotch Corporations allow students to pass the preliminary after the commencement of pro-

fessional study—*i.e.*, after registration. We cannot obtain accurate information on this important subject.

The Council has always desired that the examinations in general education should be in the hands of the National Educational Bodies. At the outset the Council was obliged to recognise the examinations instituted by the Corporations, but, as well in 1860 as in 1877, it has affirmed the principle of leaving the examination in general education to the Universities and such other Bodies engaged in general education as it might approve.

No subject has engaged the more anxious consideration of the Council than that of preliminary education and examination. The ignorance of candidates presenting themselves at the preliminary examinations, the large number of rejections, and the faulty spelling and want of culture exhibited by many of the candidates at the professional examinations, have forced the subject on the attention of the Council, not only because the better general education of the student must tend to the elevation of the profession, but also because deficient preliminary training increases the difficulties of students in mastering the professional subjects, and becomes a cause of failure at the professional examinations. Hence we find the Council constantly revising its regulations, constantly discussing the subject at its annual sittings, constantly passing resolutions, and remitting the consideration of the means of improving the preliminary examinations to Committees and the Branch Councils. Notwithstanding all its solicitude, the Council is by no means satisfied that the proper standard has yet been attained. In 1876 the Council desired to direct attention to the important fact that many candidates still enter upon their professional studies who are very deficient in preliminary education, and in 1877 the Council recommended to the various Licensing Bodies to instruct their examiners in professional subjects, to report to them any cases in which decided ignorance of general education had been displayed by the candidates, with the name of the Board or Boards before which the preliminary examinations have been passed, and that the Licensing Bodies be requested to transmit such reports to the "Registrar of the General Medical Council."

The Council decided in 1866 that Greek should be made compulsory after 1869, but resolved in 1869 that 1870 would be too soon to transfer Greek from the list of optional subjects.

It should be added that the Council considers a higher standard

of preliminary training desirable for those who graduate at the Universities. In 1860 the Council considered it undesirable that any University should confer a degree in medicine on anyone who had not graduated or passed in Arts, or passed equivalent examinations to those required for a degree in Arts, and to this expression of opinion they have adhered, notwithstanding the active efforts of those opposed to the recommendation.

5. The General Medical Council has established a system of registration of medical students. It was ordained that, after the 1st of October, 1860, all medical students were to register within fifteen days from the commencement of each session—the several bodies in Schedule A of the Medical Act opening a Register jointly or severally according to a prescribed form. In 1865 the registration recommendations were revised by the Council, which decided that every medical student should be registered by the Branch Registrar of his division of the kingdom at the commencement of his professional studies, after passing the preliminary examination, and that an alphabetical list of registered students should be prepared and printed annually as the Students' Register; and that, after October, 1869, the Licensing Bodies should not admit to examination any student whose name did not appear on the Register. The subject occupied the attention of the Council annually, and was regularly referred to committees or sub-committees for report, amendment, or re-arrangement. No important change was made until 1877, when the Licensing Bodies were recommended to accept registration of the Branch Councils, and to abolish their separate registration regulations. The recommendation has been carried out by all the Corporations concerned.

6. The General Medical Council has fixed 21 years as the earliest age at which a licence to practise can be obtained. All the Licensing Corporations conform.

7. The General Medical Council has constantly insisted upon 4 years' professional study, but has recently issued a recommendation that candidates be not admitted to the final examination whose names have not been registered at least 45 months previously—that is to say, 3 months can be subtracted from the 4 years, if it suits the convenience of candidates.

8. The General Medical Council has settled the mode in which professional study may be commenced. In 1861, the time of commencing professional studies was defined to be the time of

commencing at a medical school after passing the preliminary. The chief and subsequently the only offender against the resolution of the Council was the College of Surgeons of England, which has always considered registered pupilage as a commencement. In 1863 the Council received a polite note from the College, conveying its reasons for non-conformity, without intimating the least intention of future compliance. The Council declined to censure any of the non-conforming Corporations, and negatived a motion disapproving the action of the College. Latterly, as the College has continued to act upon its own views, the General Medical Council has obligingly conformed to the College of Surgeons, instead of obliging the College to conform to the Council. Perhaps the Council was converted to the views of the College. If so, well and good; but if not, what opinion can be formed of it?

9. The General Medical Council has still to undertake the systematic consideration of the subject of medical education. The least satisfactory part of the work of the Council has been given to professional education. Some good and useful but desultory resolutions have been passed, and some regulations enforced, by which beneficial changes have been effected; but the subject has been treated in a fragmentary manner, and the "old chaos of rules and regulations," issued by the examining authorities, continues in much the same condition as before. In justice to the Council it must be admitted that this result is probably due to the circumstance that its main attention has been directed to the establishment of conjoint boards of examination, and that the constant expectation that the conjoint schemes would shortly be in operation and necessitate a review of the curriculum, has led to the postponement of the subject from year to year.

The Council has drawn up a list of the subjects of professional study, and has passed some resolutions against excessive lecturing, the last, in 1877, being against the demand of a second course of lectures on the same subject from the medical student. In 1868 a Committee was appointed "to consider and report how the various subjects of medical education, which have been deemed requisite by the Council, may be taught with most advantage, in what order they should be studied, and how the examinations on them ought to be arranged." This Committee placed itself in communication with the teachers at the various schools, and collected a considerable body of evidence and individual professional opinion. The Report of the

Committee was laid before the Council in 1869, and it was resolved to take it into consideration in 1870; but, owing to the introduction of Lord Ripon's Bill, it was not considered till 1871, when the Council passed three resolutions—1. That it is desirable that instruction in pharmacy should be separated from that in therapeutics, and that the former should be attended at an early and the latter at a later period of the medical curriculum. 2. That it is desirable that instruction in pathological anatomy should form part of professional education. 3. That it is desirable that class examinations should form part of every course of instruction. *Voilà tout.*

10. The General Medical Council has greatly improved the professional examinations. The improvements have been effected by issuing recommendations to the Licensing Bodies, by obtaining returns from them, and by visitation of the examinations. Among the earliest recommendations agreed to by the Licensing Corporations were the following, in 1860:—1. The professional examination to be divided into two distinct parts—the first to be undergone not before the end of two years, and the second not before the end of four years of study. 2. The first professional examination to be conducted partly in writing and partly *vivâ voce*, and that such parts as admit of it be made as practical and demonstrative as may be possible. 3. That the second examination be conducted partly in writing, partly *vivâ voce*, and practically as far as may be convenient and attainable. 4. The professional examinations to be held by the Licensing Bodies (except in specified cases) at stated periods to be publicly notified. Returns of the number and names of the candidates passed, and of the number rejected at the final examinations, and latterly at the primary examinations also, have been made annually to the General Medical Council on January 1st.

Visitations of examinations were instituted in 1865, and entrusted to the Branch Councils. In 1873, the Council affirmed the principle of engaging the services of competent persons, not members of the Council, to act with members of the Council as visitors; and since then each examination has been inspected by two visitors, one a member of the Council and the other selected outside the Council. The usual course pursued by the Council has been to consider the Reports of Visitors *seriatim*, and, after discussing each, to order that the Report be sent to the Licensing Corporation concerned for consideration and remarks. In one or two cases the Council has called the attention of the Licensing Corporation to imperfections

noticed by the visitors. Some of the principles for the conduct of examinations affirmed by the Council ought to be quoted. In 1867 it was resolved—1. That Licensing Bodies should, when practicable, combine their examinations so as to secure that candidates should be tested in all the subjects considered essential by the Council. 2. That examinations should be both oral and in writing. 3. That no less than two examiners, or one examiner and one assessor should be present at an oral examination. 4. That the oral examinations should be open to medical and surgical graduates, or members of the examining body. 5. That the questions should be sufficiently numerous and varied to test adequately the proficiency of candidates, and, if desirable, should be submitted to the whole body of examiners before being proposed to the candidates. 6. That the answers should be submitted to more than one of the examiners. 7. That practical examinations should be held in all the subjects in which they can be employed. 8. That excellence in one or more subjects should not be allowed to compensate for failure in others. 9. That if a candidate be rejected for failure in any one subject he should be re-examined in all. 10. That examiners should only be elected for definite periods, with power of re-appointment. In 1874 it was resolved—1. That the area of examinations in Botany, Zoology, Chemistry, and Materia Medica should be limited and defined. 2. That two examiners or one examiner and one assessor should be present at every clinical as well as every oral examination. 3. That the examinations of the licensing bodies should not be conducted wholly or in great part by the lecturer or teacher in that subject in the school in which the candidate was educated. 4. That the microscope should form part of the examinations of candidates for a licence. In 1875 it was resolved "that it is desirable that candidates in examinations in anatomy should understand that they may be called upon to perform actual dissections, and that candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject. In 1877 it was decided that there should be three professional examinations, and that an examination in the earlier subjects of professional study should *take place* before the end of the first year. It will be observed that the examination is not to be *passed*, but simply to *take place*. Indeed, the Council negatived a resolution affirming that the examination should be passed at the end of the

first year. Such a mode of treatment of an examination intended to prevent students wasting the first year is decidedly feeble. Some other resolutions were passed, but they were only a circumlocutory method of expressing the fact that things should continue as they were.

11. The General Medical Council has faithfully promoted and stimulated the formation of conjoint Boards for examination by the voluntary amalgamation of Licensing Corporations. In 1859 the Council gave their sanction to the co-operation of the College of Physicians of Edinburgh with the College of Surgeons of Edinburgh, and also with the Faculty of Physicians and Surgeons of Glasgow for the purpose of bestowing double qualifications. Some negotiations between the College of Physicians of London and the College of Surgeons of England for the bestowal of a double qualification fell to the ground. The Council did not take up the subject till 1868, when it passed a resolution in favour of combining examinations. In 1869 the Committee of Council on Professional Education, reported that the time had arrived when, "leaving the Universities and Corporations to deal as they pleased with their honorary distinctions and degrees, the Medical Council should endeavour to effect such combinations of the licensing bodies as may form a conjoint examining Board for each division of the kingdom, before which every person who desires a licence to practise should appear, and before whom he should be examined in all subjects." The report of the Committee was submitted to the consideration of the Licensing Bodies, and a stimulus was thus imparted to all the Corporations in England, Scotland, and Ireland. In England the Colleges of Physicians and Surgeons, and the Apothecaries' Society appointed Committees to consider the possibility of forming a combined examining and licensing Board for England. A scheme was drawn up and approved by the two Colleges, and was nearly ready for submission to the Council when that body held its first meeting in 1870. At that time none of the Scotch bodies had given in their adhesion to a conjoint scheme for Scotland, and the Irish Corporations were divided in opinion, but under the refreshing influence of a letter from the Medical Officer to the Privy Council a wonderful unanimity was displayed, and resolutions were passed in favour of immediate combination, of submission of three conjoint schemes to the Council on or before June 1st, and of application to Her Majesty's Government to bring

in a Bill to give the Licensing Corporations the requisite powers. The introduction of the Bill of Lord De Grey arrested for the time the process of voluntary combination under the influence of the Council only. The Bill itself, submitted to the Council on April 28th, went further than was palatable to the Council. It provided for the compulsory formation of conjoint examining Boards, with power to bestow registrable licences to practise both medicine and surgery. The Council suggested the substitution of "certificates of competency to practise" for "licences," but, as Lord De Grey considered the original provision essential to the Bill, gave way, "making a virtue of the necessity," and offered suggestions for preserving as far as possible the rights of the Medical Authorities. The withdrawal of the Bill, owing to the opposition of the British Medical Association, which was dissatisfied with the absence of clauses from the Bill for conferring on the profession direct representation in the Medical Council, was the signal for the resuscitation of conjoint schemes, and the Council in 1871 resolved to meet early in 1872 to receive a scheme from the authorities in each division of the kingdom. A conjoint scheme for England, similar to that of 1869 and 1870, was prepared by Committees of the Colleges and the Apothecaries Society, but when the draft scheme came before the Council of the College of Surgeons it was decided not to sanction some of the provisions. At the next meeting of the Council, however, the minutes of the preceding meeting were not confirmed, and the scheme was reconsidered at a subsequent meeting in Committee of the whole Council. A joint Committee of the licensing bodies in London met for the purpose of conferring about the scheme. Some difficulties arose about the appointment of examiners, the College of Surgeons objecting to the selection of examiners by a central Board. The College of Surgeons, however, withdrew their opposition, and the obstacles to the scheme appeared to have vanished. But now arose a succession of legal difficulties. The Apothecaries' Society found that the Apothecaries Act prevented them from joining in the scheme. The Colleges proceeded to act independently. When in a fair way to completion, the scheme was sent to the Universities and virtually received their sanction. Then the University of London discovered that there were legal obstacles to its co-operation arising out of the provisions of its charter. The lawyers held that if the University took part in the scheme for a conjoint Board, the rights and privileges of its

affiliated Colleges would be touched and invaded. An enabling Bill must be obtained. The Council approved the scheme submitted on behalf of the five other licensing bodies with the expression of a hope that the University of London and the Apothecaries' Society might be enabled to co-operate. An enabling Act for the University of London was passed in 1873, and in 1874 the Apothecaries' Society procured an Act to amend the Apothecaries Act of 1815. Meanwhile the conjoint scheme had been put into working order, and every obstacle appeared to be removed, and the Council, which had cordially assisted the University of London and the Apothecaries' Society, was beginning to sound the pæan of congratulation at the imminent advent of the scheme, when the College of Surgeons discovered a legal difficulty requiring an Act of Parliament for its solution. This obstacle also was surmounted, and the College procured an enabling Act in 1875. Then a dead-lock ensued over the old stumbling-block of the election of examiners. Several conferences were held, and it was not till December, 1876, that the conjoint scheme was approved by the College of Surgeons, which waived its objections in order to secure the success of the scheme. On the 24th of May, 1877, the scheme received the sanction of the General Medical Council. It was apparently intended that the scheme should come into operation on the 1st of October, 1877, but the members of the joint Committee of the bodies co-operating—the Committee of Reference—were not appointed till November and December, and after their appointment the Committee was engaged in working out the details of the scheme, which would have been published in May, 1878, and have come into operation on October 1st, but for the introduction of the Government Bill to amend the Medical Act.

The Licensing Authorities in Ireland took up the question of forming a joint board at an early period after the passing of the Medical Act, with the result that "after careful deliberation they came to the conclusion that the plan would benefit neither the public nor the profession." In reply to the communications of the Council, in 1870, the University of Dublin expressed an opinion in favour of only one examining board for the whole kingdom—the board holding its meetings successively in London, Dublin, and Edinburgh; the College of Surgeons could not bring themselves to believe that the suggestions of the General Medical Council would

remedy the inequality of examinations for the licence, or the other existing evils; the King and Queen's College of Physicians were not prepared to admit that a conjoint board, founded as proposed, was the best way of improving professional education, and therefore did not feel themselves called upon at present to enter into the details of the mode of carrying out that proposal; the Apothecaries' Society concurred in the plan; and the Queen's University did not reply. In 1872, Dr. Stokes stated at the Council that great difficulties had been experienced. A distinguished body of representatives had been chosen to attend a conference, and the conference had drawn up a report. The scheme had been sanctioned by the University of Dublin and the Apothecaries' Hall, and time would lead to unanimity. The conferences between the Licensing Bodies were resumed after the meeting of the Council, and ultimately a scheme was adopted by three of the bodies—the University of Dublin and the two Colleges. The Queen's University stood aloof, and there were difficulties with the Hall about the appointment of examiners. In 1874 we find that a Committee of Reference, appointed by all the bodies except the Queen's University, had completed a scheme for submission to the Corporations, but in 1876 the Council was constrained to pass resolutions expressing its regret that after so long delay no scheme for a conjoint examining Board for England, or for Scotland, or for Ireland, had been put into operation, and urging, as earnestly as possible, the formation of such boards. Later in the year the University of Dublin, the King and Queen's College of Physicians, and the College of Surgeons, appointed a Committee which drew up a scheme; but what has been the fate of the scheme, or what is the present position of the matter, it is impossible to say.

The Medical Authorities of Scotland sent delegates to a conference in 1872, and drew up a modified scheme of conjunction, but the Corporations were not agreed, and the attempt at conjunction was abandoned.

The principle of conjoint schemes met with serious opposition in the Council in 1876. At the root of this opposition lay the difference in relative position of the Licensing Corporations and the Universities in Scotland and Ireland, as compared with England. In Scotland and Ireland the Universities compete with the Corporations in the bestowal of qualifications to practise, whilst in England they confine themselves to conferring the higher degrees.

The only exception in England is the University of Durham; but as no one takes the surgical licence, and only a few the medical licence of that University, the exception is more apparent than real. In Scotland, according to Mr. Turner, it is the custom for the great mass of medical students to enrol themselves in a University, and obtain its degrees, whilst many students come from foreign countries and from the Colonies to graduate at the Scotch Universities. Hence the institution of a conjoint board, involving the necessity of passing a minimum examination, and paying a separate set of fees before graduating and paying the fees for examination and graduation at one of the Universities, would be felt as a grievance by Scotch students. In Ireland the Medical and Surgical Corporations are subject to the direct competition of the Queen's University, which grants a surgical, a medical, and a midwifery qualification for twelve guineas. In one year the number passed by the Universities was 149, and by the three other Bodies 212. All kinds of other objections—such as the advantage of having teachers as examiners, difficulties connected with the possible necessity for creating peripatetic examiners, the probable deterioration of the quality of examiners under the conjoint scheme, the increased number of rejections, and the dearth of medical men for the poorer classes—were arrayed against the establishment even of a conjoint board for England. But in spite of all the ingenuity of the opposition, the motion in favour of conjoint schemes was carried by fifteen to six. Thus the majority of the Council declined to stultify all its antecedent work and resolutions.

12. The General Medical Council has spent much time and labour over discussions on, and propositions for the amendment of, the Medical Act. Amendments have been suggested to many clauses, but some were merely directed to improve the working of clauses, or to make the meaning more clear or precise, or to introduce a more convenient mode of procedure. Other amendments have been framed for the purpose of giving to the Council greater control over registration—such as power to refuse to register persons deemed insufficiently qualified, and a dispensatory power in the case of foreign degrees. It has been considered that a more comprehensive phrase than "infamous conduct" should be introduced into the 29th section. The Council has always upheld the principle of refusing to register qualifications granted by Bodies out of the United Kingdom over whose courses of study and examina-

tion it could not exercise any supervision. The claims, however, of Colonial practitioners and British subjects possessing foreign diplomas and resident abroad, and the necessity for reciprocity in recognising foreigners practising in England, in order to preserve the privileges of British subjects practising on the Continent, have necessitated some relaxation of the principle without altogether abandoning it. In the case of diplomas granted out of England it has been considered sufficient that the Medical Council should have reasonable guarantees of efficiency in education and examination. Hence, resolutions have been passed by the Council to sanction the registration of Colonial qualifications and degrees in a separate list in the register, to admit foreigners practising in England with recognised foreign qualifications, at the discretion of the Council, to a separate alphabetical list, and to admit exceptionally to the register, by way of special grace, persons long established in foreign parts, of approved character and attainments, but not possessed of registrable qualifications. Registration of foreign qualifications, obtained by persons primarily registered under the Act, as additional ornamental qualifications, has not been approved by the Council. The separate registration of partial qualifications, such as the Midwifery Diploma of the College of Surgeons of England, should cease, and in future such diplomas and the new qualifications in public medicine should only be entered as additional qualifications for those primarily registered both in medicine and surgery. Similarly it has been contended that no one should be admitted to the Medical Register who has not obtained qualifications to practise all the branches of the Medical Profession. Separate registration of medical and surgical qualifications should cease and determine.

In view of the great difficulties experienced in the voluntary formation of conjoint boards for examination, the Council gave in its adhesion to the principle of legislative compulsion, whilst with wise tenderness it has contended for the preservation of the position, privileges, and moral control over the members of our profession of the time-honoured medical and surgical Corporations.

Additional clauses—some think a separate Act would have been preferable—have been suggested for the supervision of midwives, so as to ensure their due education, examination, certification, and registration, and to protect the lives of child-bearing women. With

regard to dentists, detailed suggestions were made and embodied in the Duke of Richmond's Bill. The passing of Sir John Lubbock's Dental Practitioners Bill will render fresh clauses unnecessary, unless inserted by way of amendment to the Act.

The most constant and most conspicuous bone of contention in the profession has been the amendment of the 40th clause of the Medical Act. It has been felt universally that more stringent provisions are necessary to restrain, if not to suppress altogether, unqualified practice of all kinds. Under this denomination have been included not only quackery pure and simple, but the counter-practice of chemists and druggists, the employment of unqualified assistants, the granting of certificates of death by unqualified persons, the sale of quack medicines, and the practice of other branches of the profession than that for which the practitioner holds a registrable qualification. There has been no difference of opinion either as to the existence of the evils alluded to, or as to the advisability of instituting further checks. The difference has arisen in reference to the degree to which interference should be carried, and the amount of penalties to be inflicted. On the one hand were ranged the Registration Associations, representing the general practitioner, who would have shown no mercy to unqualified practice, but have met it with pains and penalties intended to effect its entire suppression. In Parliament Dr. Lush has been the representative of this section of the profession, and introduced into his Bill, as first drawn, most stringent penal clauses for the amendment of the Medical Act. On the other hand stand the section of the public, including those who would be affected by any alteration of the law, who would oppose any fresh legislative interference, and this section would be sure to find strong support in Parliament both from those who lean weakly towards unqualified practitioners as endowed by Providence with some special gifts of healing denied to the regular practitioner acquainted with the human frame and the effects of remedies, and from those who, on general principles, are opposed to any limitation of the liberty of the subject not absolutely demanded for the public safety. Steering a course between these extreme views, the Medical Council has always been willing to promote such moderate amendments of the 40th clause as would prune the exuberant growth of unqualified practice without exciting such opposition in Parliament as might be fatal to any amendment at all. This course has naturally given dissatisfaction to

many members of the profession, but it has probably been the best which the Council could have pursued. In 1861 a petition was presented to the Council from 1,312 medical practitioners, members of the various Registration Associations, about amending the Medical Act, and especially the 40th clause, which it had been discovered in the superior courts of law was only aimed at persons falsely pretending *to be registered*. Some wished to add to the clause penalties for taking titles implying membership of the medical profession, and also against unqualified persons who should in any way follow, practise, or pursue the science or calling of medicine or surgery. Other amendments also were suggested—all aiming at preventing unqualified persons from practising. Some wished to add penalties against medical men who used other titles than those for which they were registered. The Bath and Bristol Medical Association pointed out that they had undertaken many prosecutions, but had failed in obtaining a conviction in any case. The suggestions of the Registration Associations were laid on the table for consideration by the Council, and afterwards referred to a committee, which reported that nothing could be done. In 1862, however, the Council adopted an amendment imposing a penalty for taking titles implying qualifications to practise any branch of medicine and surgery, and ordered that a Bill should be drafted embodying this amendment. The Executive Committee neglected the task entrusted to it, and nothing of importance was done till 1865, when another form of amendment was sanctioned imposing a penalty on any *unregistered* person who made use of titles contained in Schedule A, or employed to distinguish duly qualified practitioners. A draft Bill was drawn up by Mr. Ouvry, and pressed on the attention of the Liberal Government. In 1866 a Medical Act Amendment Bill was drafted by Mr. Thring, Counsel for the Home Office, at the request of Sir George Grey, and brought before the Council. The Bill of the Home Office, which embraced almost entirely the Bill of the Council, with some additions and alterations, was carefully considered and amended by the Council. The Liberal Government left office, and the matter was pressed upon the attention of Mr. Walpole, Sir George Grey's successor. Mr. Walpole declined to take up the Bill as a Government measure, but said in a letter to the Council that the Government would not oppose the Bill if the Council would accept an alteration of clause 11, by which a Secretary of State, as well as

the Council, would possess the power to recognise foreign licences, degrees, and diplomas. This proposal threw the Council into a ferment. Mr. Walpole's letter was referred to a committee, and a draft reply was drawn up, and, after discussion by the Council and amendment, sent to Mr. Walpole. The reply stated the objections entertained by the Council to the proposed clause and to the suggested introduction of the Bill by a private member, and requested Mr. Walpole to re-consider his decision. Mr. Walpole vacated office, and Mr. Hardy, who succeeded him, promised to give the subject his best attention. In 1868 the good intentions of the Government and the prospect of legislation were blighted by the debates on the Irish Church. The Conservative Government retired, and the Executive Committee, on the suggestion of the President (Dr. Burrows), determined to alter its tactics, and apply to the President of the Privy Council to introduce a Bill into the House of Lords. Ultimately a letter was received from the Medical Officer of the Privy Council (Mr. Simon), announcing the intention of the Government to go thoroughly and more deeply than the mere Amendment Bill of the Council into the question of medical legislation. The President and Executive Committee were authorised to confer with the Government on the subjects referred to in Mr. Simon's letter. In 1870 the Council was called together in February, in order to consider a letter from the Lord President of the Council, written by Mr. Simon, offering to undertake legislation if the Medical Council wished him to do so, to cover all the ground where amendment of the Medical Acts was called for, but stating that he could not submit to Parliament any proposals for amending the Medical Acts in such minor respects only as were touched by the Council's draft Bill. The Council passed resolutions in favour of the establishment of conjoint boards of examination, and in favour of seeking from the Legislature the powers required to carry its resolutions into operation, and requesting Her Majesty's Government to bring in and carry through Parliament a Bill to amend the Medical Act which should contain the requisite provisions. In Lord Ripon's Bill of 1870 the 40th clause was so amended that any unregistered person practising medicine and surgery for gain, and assuming certain titles, should be liable to a penalty of £20. Lord Ripon's Bill was wrecked, as before related, and nothing of any importance was done till the introduction of the Duke of Richmond's Bill in 1878. In this Bill

there was a comprehensive section imposing penalties on persons practising for gain who, not being registered, take or use the designations employed to distinguish registered practitioners or qualified persons. The principle of Lord Ripon's and the Duke of Richmond's amendments of the 40th clause is essentially the same, and, being promoted by members of the last Liberal and present Conservative Governments, may be considered the extreme limit of probable Government interference. Unqualified practice will not be suppressed altogether, but the two classes of practitioners—the qualified and the unqualified—will be distinctly marked off from each other, and the qualified will be protected against invasion of their privileges by unqualified persons. The Duke of Richmond's Bill contained an admirable provision making registration conditional on the possession of a qualification both in medicine and surgery.

The Council has always declined to prosecute, and has expressed its opinion that in any future Act provision should be made for instituting prosecutions by a public prosecutor or other authorised functionary, instead of leaving the enforcement of the law to the voluntary action of individuals or of the public.

The Council has been desirous from time to time that penalties which are recovered under the Medical Act of 1858, and which, if the Act were carried out, would be paid to the Treasurer of the Council, should go towards defraying the expenses of prosecutions. In several cases these penalties have been diverted by the operation of the Metropolitan Police Act and other local Acts. Accordingly the Council, having on other occasions approved amendments of clause 42, resolved in 1877 to move the Government for an amendment of the clause, to prevent the future diversion of penalties. A clause was inserted in the Duke of Richmond's Bill to effect this object.

13. The General Medical Council has given its most careful attention to all Bills introduced into Parliament relating to or affecting the interests of the Medical Profession. The debates in the Council on the principles and details of Bills have reflected great credit on that body, and have been of infinite service to the Profession by the introduction of most important modifications and amendments. Allusion is made especially to the Pharmacy Bills, the Vivisection Bill, Russell Gurney's Bill, Mr. Gibson's Bill, and the Medical Act Amendment Bills of Lord Ripon and the Duke

of Richmond. The Council has always appeared at its best in discussing matters which do not in any way concern the immediate interests of the Corporations. The debates on the Registration of Women and on Vivisection were animated and well sustained.

14. The Council has adopted rules for the conduct of business.

15. The Council has had its attention directed to the important question of altering the composition of the Council by the addition of representatives of the profession at large. First, in reply to a memorial signed by upwards of 5.000 practitioners, and laid before the Council by a deputation from Birmingham, the Council passed resolutions affirming that for the purposes of the Medical Act the General Medical Council was essentially well constituted, but that if the Legislature should impose upon the Council any fresh duty or duties affecting the profession, it would be advisable that representatives of the profession should be added to the Council. A second debate took place in 1878, and ended in the following resolution being passed: "That the constitution of this Council needs revision, and that the Council do affirm and represent to the Government that at its first meeting after the present session of Parliament it will consider what modifications of its constitution are demanded and required, and will report to the Government accordingly." The Executive Committee was charged with the duty of preparing a report upon the subject. In October the Council decided not to consider the subject at its then special meeting, and not to meet specially before the meeting of Parliament to consider the subject. The Report of the Executive Committee was issued in February, and entered into an examination of the work of the Council, an historical review of the subject, and a discussion of the various plans which had been suggested for the purpose of representing the profession. The Committee considers it desirable neither to increase the Council, nor to diminish the Council, nor to disfranchise Corporations, nor to diminish the number of Crown nominees, nor to allow Members or Licentiates of Corporations to elect the representatives of the Corporations, nor to give the franchise to the members of the profession generally, nor to make any change at all. But the Committee would consider the least objectionable plan to be nomination of a certain number of General Practitioners by the Crown for seats on the Council.

*Table showing the mode of Election of the Representatives of the Licensing Corporations in the General Medical Council of Education and Registration.*

| Corporations | Body by whom Representative is elected | Number of Electors | Number of possible Medical Electors | Term of Office |
|---|---|---|---|---|
| College of Surgeons, England | The Council | 24 | 24 | 5 years |
| College of Physicians, London | The Fellows | about 300 | about 300 | 5 years |
| Apothecaries' Hall, England | Court of Assistants | 24 | 24 | 5 years |
| University of London | The Senate | 36 | 12 | 1 year |
| University of Oxford | Convocation | about 5,000 | ? | 5 years |
| University of Cambridge | The Senate | about 5,000 | ? | 5 years |
| University of Durham | The Senate | 11 | 1 | 5 years |
| The University of Aberdeen and The University of Edinburgh | Senatus Academicus | 22 | 7 | 5 years |
| | do do | 40 | 13 | |
| | | 62 | 20 | |
| The University of St. Andrew's and The University of Glasgow | Senatus Academicus | 15 | 2 | 5 years |
| | do do | 28 | 11 | |
| | | 43 | 13 | |
| College of Physicians, Edinburgh | The Fellows | about 60 | about 60 | 5 years |
| College of Surgeons, Edinburgh | The Fellows | 373* | 373 | 3 years |
| The Faculty of Physicians and Surgeons of Glasgow | The Fellows | about 120 | about 120 | 5 years |
| The University of Dublin | Provost and Senior Fellows | 8 | 1 | 5 years |
| The Queen's University | The Senate | 24 | 4 | 1 year |
| The College of Surgeons, Ireland | The Council | 21 | 21 | 1 year |
| The King and Queen's College of Physicians, Ireland | The Fellows | about 50 | 50 | 1 year |
| Apothecaries' Hall, Ireland | The Directors | 15 | 15 | 1 year |
| | Approximative Total | 11,171 | 1,038 | |

The total of possible medical electors here given is greater than the number of medical electors who take part in the election. The Council of the Irish Medical Association estimates the number at 849.

* Of 373 Fellows a large number are non-resident, and take no part in the business of the College.

16. The Council is an expensive body. The income of the Council amounts at the present time to about £6,000. The expenditure is sometimes more and sometimes less than the income. The income is mainly derived from the registration fees of new members of the profession; less than £1,000 are received from dividends on stock, a few pounds from the sale of the Medical Register, between £200 and £300 from the sale of the British Pharmacopœia. Payments comprise fees and allowances to members of the Council, Branch Councils, and Executive Committee, which may amount to more than £2,000. Printing, stationery, posting, and advertising, are heavy items. In 1877, £1,468 5s. 2d. were expended under this head. Salaries of Registrar and clerks amount to about £550. Visitations of examinations cost £598 10s. in 1873, when five examinations only were visited, giving an average of about £120 for each examination visited. The Register and the Pharmacopœia have to be issued, and the expenditure, included under the head of printing above mentioned, amounts in the case of the Register to about £200, and in the case of the Pharmacopœia to about £500 for 5,000 copies. Altogether the Profession have paid to the Council since 1858 about £130,000. The English Branch Council has £35,000 invested in 3 per cent. Consols, the Scottish Branch Council, £2,000, and the Irish Branch Council, £2,245.

17. The preceding review of the labours of the Council will have sufficed to prove that the Council has done good work for the profession during the twenty-one years of its career. If no great improvement has yet been effected in medical education and medical teaching—if these subjects appear to have been deprived of their due share of attention from a General Council of Medical Education—the professional examinations by which the course of education is chiefly guided have been rendered far more efficient and trustworthy by the recommendations and visitations of the Council. The institution of a preliminary examination—though the examinations as at present conducted may fall short of the requisite standard—has insured a degree of culture in those who seek to pass through the portals of the profession. The publication of a pharmacopœia—inordinately expensive as the work may have been—was no mean achievement. The publication and guardianship of the Register have been efficiently and wisely performed. The discussions on medical bills have been conducted with propriety and judgment, and the amendments effected in their provisions

have been of great utility to the profession. Conjoint Boards of Examination have been faithfully promoted, and the Council has been in earnest in endeavouring, according to its lights, to amend the "Medical Act." The faults and defects of the Council have been obvious, and of a kind which might have been anticipated from the nature of its constitution. With 17 out of 24 members representing 19 Corporations, whose interests are concerned in the topics comprising the main business of the Council, it cannot be surprising that the debates should be pervaded with the corporate spirit and leaven. Resistance of Corporations to unpalatable propositions, loquacity, passages of arms between representatives of Corporations, satisfaction with things as they are, want of sympathy with the views of the profession at large, were natural manifestations. Probably to the same source must be referred the timidity, vacillation and tendency to endless recapitulation of work already done, displayed by the Council. The authority of the Council has been defied more than once, yet the Council has never dared to exercise its power of appeal to the Privy Council. Clearly before the Medical Act of 1858 was styled, at the Council, by Dr. Alexander Wood in 1867, "that misshaped, misbegotten Bill, which we have sat nearly ten years trying to administer," the means of obtaining uniformity and efficiency, provided by the Act, should have been tried. But the Council was in mortal dread of the very able and astute Medical Officer of the Privy Council who had very clear views of Medical Reform, and feared that it might become the vassal of a Medical Dictator. Instead, therefore, of appealing to the Privy Council, the Medical Council has conformed to the non-conforming College of Surgeons of England, and ignored the flaunted opposition of the Queen's University. But, apart from this infirmity of purpose, the Council has adopted the most circumlocutory method of proceeding in regard to its recommendations and reports. In 1869 the following sketch was no unfair representation of the method of the Council:—"A complete revision of the whole curriculum must necessarily be a work of time, and, not improbably, in the hands of a deliberative body like the Medical Council, a work of years. The first Committee only is now sitting. That Committee will submit a report. That report will be discussed, amended, and referred back to the Committee. The Committee will return the report in a form for circulation among the Licensing Corporations, who will be requested to

express their opinions for the next meeting. At the next meeting these opinions will be referred to another Committee for digestion, selection, and tabulation. The tabulated digest will be read at the Council and entered on the minutes. The Council will resolve itself into a Committee of education to reconsider the report of the Committee of the previous year. Into the report of the Committee of the previous year, alterations, verbal or substantial, will be introduced; or out of the report of the previous year suggestions too rational, and too subversive of present usage for the Licensing Corporations to adopt, will be studiously eliminated. These eliminations will not be effected without varieties of vituperation bandied round the Council table. The Council table will be 'a chaos of thought and passion all confused'—calling for exhortations to order from the President, who will point out to the reporters that this ornamental portion of the debate has no particular bearing upon the subject, and need not encumber the pages of the press. The press, well aware of the proclivities of the Council, will already have instructed the reporters to omit the habitual and annual interchange of compliment and courtesy. The interchange of courtesy will 'separate chief friends' till the next year, when there will be an affecting reconciliation previously to the third consideration of the recommendations which meanwhile have been again sent to all the bodies specified in schedule (A), and again been honoured or dishonoured by those bodies. The answers of those bodies will once more be tabulated by a Committee, and it will be found that one or more important Colleges still decline adhesion. The letters of the Colleges declining adhesion will be entered on the minutes, and after the letters will arise a discussion about the powers of the Council under the Medical Act, in the course of which one member will urge an appeal to the Privy Council, a second member will declare an appeal to the Privy Council useless, a third member will say that nothing can be done, a fourth member—like a Greek chorus after a murder—will affirm solemnly that something ought to be done, a fifth member will consider the case peculiar, a sixth member will abuse the Medical Act and utter a magniloquent exhortation for the Council to throw itself into the arms of the profession, a seventh member will abuse the Colleges which have made the Council ridiculous, an eighth member will urge an amendment of the Medical Act, a ninth member will point out that he knew it would come to this, a tenth will request the

President to say something. The President will state the case, and give way to the eleventh member who has to make a proposition that the recommendations and answers of the Licensing Bodies be referred to a Committee to report at the next annual meeting, a twelfth will eagerly second the motion, a general chorus of approval will ratify the brilliancy of the suggestion, attitudes of defiance will be abandoned, smiles will sit on the noble countenances which had been grim with scowls, the appeal to the profession will be postponed *sine die*, the amendment of the Medical Act will be put into a private pigeon-hole, and the Council will blandly pass out of disorder to the order of the day. This is a fair deduction from past experience."—*Medical Press and Circular*, Feb. 24, 1869.

The Council must be charged with want of sympathy with the views of the great body of the profession in reference to the constitution of the Medical Council. It could scarcely have been expected that the Council would have been readily convinced of the necessity for a reform in its own constitution, and it was not surprising that a memorial, signed by many thousands of members of the profession, urging the concession of direct representation to the profession in the General Medical Council, was not very warmly received, nor could it have been hoped that its objects would be actively promoted by the Council. We are not, therefore, prepared to pass any severe censure on the Council for the faith which it has reposed in the merits of its own constitution; but that for which it is censurable is the waste of valuable time and opportunity since it actually arrived at the conclusion that the constitution of the Council needed revision. Knowing the interest of the profession in the matter, and the importance attached by the profession to the acquisition of direct representation in the Council, the Council might at least have made it a primary object of care to discuss the report of the Executive Committee in time for the introduction into the Duke of Richmond's Bill of clauses making the requisite provision for the revision which it had declared was needed. So much the profession had a right to demand; and it is not too much to say that by the apathy of the Council and the hostility of the Executive Committee the Council has fallen many degrees in the estimation of the profession. Sir Dominic Corrigan and Mr. Macnamara distinguished themselves in endeavouring to vindicate the honour of the Council, and to place the Council in harmony with the profession. They

fought well, but they fought in vain. It is pleasant to conclude our observations on the Council with a word of approbation and congratulation. Whatever may have been the defects of the Council, the Council has numbered in its ranks many distinguished members of the profession, and these members have made their influence felt with the Government of the country. The Council has won a very influential and honourable position, which was expressed by the Duke of Richmond when he said that "he, himself, and the Government generally, feel that a body constituted like the Medical Council is in full possession of the knowledge of what is necessary in relation to medical questions, whether viewed professionally, or in a more complete and national sense; and it was his Grace's conviction that it was essential as well as desirable to confer on all subjects of this kind with the Medical Council prior to undertaking legislation."

Some account must now be given of amendments of the Medical Act.

The Medical Act of 1858 has been amended nine times ; once in 1859, twice in 1860, once in 1862, once in 1868, once in 1873, once in 1875, and twice in 1876.

In 1859 an Act (22 Vic., c. 21) was passed for the purpose of extending the time of registration, to repeal Schedule D, and to correct some clerical errors and omissions in the Medical Act.

The first Act of 1860 (23 Vic., c. 7) extended the time for registration and permitted the registration of Licences in Surgery. The second Act (23 and 24 Vic., c. 66) related to the College of Physicians.

In 1862 the Medical Council was incorporated by the 25th and 26th Vic., c. 91. The exclusive right of publishing, printing, and selling "The British Pharmacopœia" is vested in the Council, and "The British Pharmacopœia" is to supersede all existing Pharmacopœias in the kingdom.

The Medical Act Amendment Act, 1868 (31 and 32 Vic., c. 29), or an "Act to amend the Law relating to Medical Practitioners in the Colonies," was directed to the amendment of the 31st section of the Medical Act.

In 1873 was passed "The University of London Act" (36 and 37 Vic., c. 55)—the enabling Act before alluded to. It enables the University to make a law prescribing that no person can become a graduate in medicine unless he has passed the conjoint examina-

tion. Such by-law must be approved by one of Her Majesty's principal Secretaries of State, and the assent thus given may be revoked at any subsequent time.

In 1875 "The College of Surgeons Act" (38 and 39 Vic., c. 43)—the enabling Act—was passed.

In 1876 two important Acts affecting the Medical Act were passed.

The first (Mr. Gibson's Bill) is called "the Medical Practitioners Act, 1876" (39 and 40 Vic., c. 40). It provides (1) that all legally qualified practitioners in medicine and surgery shall be capable of election as surgeons to county infirmaries and hospitals in Ireland, and (2) that the qualification of Bachelor of Surgery from any University in the United Kingdom legally authorised to confer the same may be registered under the Medical Act.

The second was Russell Gurney's Act. It is called "An Act to Remove the Restrictions on the Granting of Qualifications on the ground of Sex" (39 and 40 Vic., c. 41), and enacts that the powers of the bodies entitled to grant qualifications for registration shall extend to the granting of any qualification for registration granted by such body to all persons without distinction of sex. The exercise of such powers is not rendered compulsory. Defective provision is made for the continued exclusion of women from the government of the Corporations.

The profane attempt of ambitious women to enter the sacred precincts of the medical profession has aroused the warmest feelings of antagonism within the charmed circle of regular male practitioners. True it is that there have been medical women from remote periods of antiquity. The professional mind appears to be unable to contemplate with calmness the near prospect of actually existing female doctors, although its equanimity would be undisturbed by any historic portrait. It is not that the arguments against women undertaking medical practice are overwhelmingly strong, and that the supporters of female practitioners are perversely blind to their cogency—for the arguments on the other side are not without force—but that there is something in the nature of the idea which carries away a certain section of the profession, and leads to the display of an antipathetic feeling unsurpassed in intensity by any which is called forth by any other professional topic. Many of the most estimable members of our profession perceive in the medical education and destination of women a horrible and vicious attempt of women deliberately

to unsex themselves—in the acquisition of anatomical and physiological knowledge the gratification of a prurient and morbid curiosity and thirst after forbidden information—and in the performance of routine medical and surgical duties the assumption of offices which Nature intended entirely for the sterner sex. Hence the antagonists of medical women lose all patience over the topic, and are incapable of arguing it with any approach to calmness. Indeed, what is called strong argument is generally mere assertion and a warmer display of feeling than usual. The eminent physician who would rather follow his daughter to the grave than see her studying practical anatomy forgets that he is not obliged to bring up his daughter to the medical profession, and that the fact that he would not allow his daughter to be medically educated is no ground for preventing his neighbour from allowing his daughter to acquire knowledge and skill. Neither does it amount to anything but an exuberant outburst of feeling to say that if women are admitted to degrees at the London University, the opponent of the measure will do his best to prevent any young friends or pupils from taking the degrees of the University. It would be going too far in the opposite direction to charge the antagonists of medical women with trades unionism; it would be considered justly offensive and gratuitous, but this is a charge which unprofessional supporters of medical women might urge and have urged with some plausibility, because the effect is the same as if the trades union spirit actually prevailed. Without professing ourselves to be at all enthusiastic in favour of a medical career for women—for we think that by frame, temperament, and mental constitution, woman is not well adapted for medical, far less for surgical practice—we think that it is not for the members of our calling to do more than exercise a private influence against the destination of young women to the medical profession. Medical practitioners are excellently placed for supplying information concerning the nature of a medical student's career, the difficulties and dangers of the profession, and for tempering the enthusiasm which has not yet encountered stern realities. It is not, however, the office of our profession to lead the van of any public crusade against the admission of women into our own ranks. Such opposition is sure to be decried as akin to trades unionism, and it is difficult to refute the charge. We may solemnly aver that the opposition of our profession to the admission of women is disinterested, and is solely to prevent

injudicious women from embarking on a course which must prove injurious to them. Unfortunately our protestations would be received by the public with incredulity. The Legislature has determined that the experiment shall be tried. By all means let it be tried. It is said that there is a demand for female medical services amongst members of their own sex and amongst children. Be it so. The experiment will determine the depth of the demand. Prior to the action of the Legislature it was our opinion that there was nothing, and could be nothing, very dreadful in opening the stores of medical knowledge to women. It is illogical to confound the painstaking acquirement of scientific terminology with the gratification of a prurient curiosity. There is no heat in knowledge or science, and there is a distinct advantage in women acquiring exact medical knowledge, and aiding in its diffusion, instead of remaining in the crass darkness of popular fallacies and delusions. There is much need for the spread of information on ordinary topics, such as on the proper food and proper clothing for children, which women with a sound medical training are well fitted to impart. Furthermore, it was our opinion that the question of medical women was a very small question, which had been elevated into importance by the violence of the opposition. To move heaven and earth, metaphorically speaking, to endeavour to exclude a few ladies from the medical profession never seemed either a wise or a dignified procedure. We say a few, because we feel convinced that the movement must always be of a limited character. Women's disabilities are too many to allow more than a few to adopt the medical profession as a livelihood. Woman is too heavily handicapped to compete with man in medical practice. Were it otherwise, what right should we have to hinder women from choosing a professional career? and if it be so, what necessity exists for the lords of creation to interfere? Yet such is the inconsistency of the opponents of medical women that, though they insist that a medical career is impossible for women on physical grounds and sexual grounds alone, yet they are unwilling to trust to natural obstacles, but desire to shelter the women or themselves behind legal disabilities. Surely this displays "a will most incorrect to heaven, a heart unfortified, a mind impatient, an understanding simple and unschooled." Happily the Legislature has broken down the barrier, and a few years will demonstrate how little vitality is possessed by the movement for the medical education of

women, how small will be the response in the ranks of women themselves, and with what false fears and vague alarms the professional mind has been agitated.

A variety of Medical Act Amendment Bills has been before Parliament since 1870. First came Lord Ripon's Bill, introduced on the 8th of April, 1870, into the House of Lords, which provided for the establishment of a conjoint board in each division of the kingdom. The Medical Authorities of each division were to confer together and draw up a scheme for the establishment of a conjoint board on or before October 1st, 1870. The schemes thus framed were then to be submitted to the General Medical Council, who might amend the same and submit them to the Privy Council. If the examining boards were not established before January 31st, 1871, the Medical Council was to prepare and submit a scheme to the Privy Council. The Medical Council was to prepare, from time to time, rules for regulating examinations under the Act. To the Privy Council was reserved the power of modifying proposed schemes. An order from the Privy Council to the effect that any examination did not confer a title to registration, was to dissolve such board. The examining boards constituted under the Act were to confer a licence to practise both medicine and surgery; the persons so licensed were to be called licentiates, and to be registered. None of the Medical Authorities were to grant any title of Licentiate after the commencement of the examinations under the Act; and after a certain date no one was to be registered under the Medical Act unless licensed to practise medicine and surgery under the new Act. After a certain date the Medical Authorities were not to grant any of the qualifications in Schedule A, except to persons registered or qualified under the Medical Act; but any authority might grant the lowest degree, or membership, to licentiates under the Act. Provision was made for uniformity in the three conjoint examinations, for the registration of persons possessing colonial and foreign degrees, the amendment of the 40th clause, prosecutions by the Branch Councils, or private persons, with consent, and only with consent, of Branch Councils.

Sir John Gray's Medical Bill, introduced in 1870, proposed to add to the Council twelve members, to be selected by the votes of registered practitioners—six for England, three for Scotland, and three for Ireland. The members of the Council were not to be paid out of the funds of the Council; the corporate members were

to be paid by the Corporations, professional members by the constituency, Crown members by the Privy Council. The enlarged Council was to elect twelve examiners, each for three years, and six were to be chosen by the Privy Council. The Board was to hold periodical examinations in London, Dublin, and Edinburgh. No person was to be placed on the Register till passed by the Board. All vacancies in the Poor Law and Medical Civil Services were to be filled up by competitive examinations—a Committee for each division of the kingdom being appointed by the Medical Council.

In 1871 a Medical Bill, promoted by *The Lancet*, was introduced by Dr. Lush. The Council was cut down to thirteen members, a president and twelve medical practitioners—four to be nominated by the Crown, four by the profession, and four by the Medical Authorities—two of each four being for England, one for Scotland, and one for Ireland. The Medical Council was to elect examiners to form a National Medical Examining Board, the members of the Board to attend, as appointed, in England, Scotland, and Ireland, and to conduct the examinations of all candidates for a Licence to practise under the Act; examiners to report to the Council and to grant certificates to candidates for delivery to the Chief Registrar, from whom the Licences to practise would be obtainable. Provision was made for preliminary examinations, remuneration of examiners, appointment of a Board of Inspectors for medical examinations, registration of foreign and colonial degrees, and amendment of the 40th clause, and other matters.

Dr. Brady's Bill, introduced in 1871, proposed to alter the composition of the Medical Council by taking away three of the Crown nominees and adding five representatives of the medical profession—making twenty-six members of Council instead of twenty-four. The Medical Authorities were charged with the duty of forming an Examining Board in each division of the kingdom, and in case of failure the duty was to devolve on the General Medical Council. The Examining Boards were to give Licences in medicine, surgery, and midwifery, which were to constitute the sole titles to entrance on the Register. The Authorities were still to be at liberty to confer their various diplomas, or degrees, either before or after the passage of the conjoint Board.

In 1878, in addition to the Duke of Richmond's Bill, three other medical Bills were introduced:—1. A Bill brought in by Dr. Lush,

Sir Trevor Lawrence, Mr. Samuda, and Mr. Ritchie, directed to the amendment of the 40th clause, to prevent the diversion of penalties recovered under it by the operation of local Acts, and for the registration of such foreign and colonial degrees as the Medical Council might deem granted in respect of sufficient knowledge. 2. Sir Dominic Corrigan's Bill, brought in by Mr. Errington, Mr. John Maitland, and Mr. Blennerhassett, making a double qualification necessary for registration, and the passing of a test examination essential for employment in the Civil Service—as surgeon, or medical officer, in ships, at hospitals, &c.; an Examining Board for the latter purpose was to be appointed by the General Medical Council, consisting of nine examiners, three for each division of the kingdom. Those who passed were to be able to append C.M.B. (Civil Medical Board) to their names; the fee for examination and certificate was not to exceed £5. There were other provisions for details. 3. The Bill of the British Medical Association brought in by Mr. Mills, Mr. Childers, and Mr. Goldney. This Bill provided for the addition to the General Medical Council of six persons, to be elected by the registered medical practitioners resident in the United Kingdom, compulsory formation of conjoint boards with detailed provisions for the duties of all concerned (this part of the Bill was similar to Lord Ripon's), admission of colonial and foreign diplomas to the Register, amendment of the 40th clause, recovery of penalties, and other matters.

In 1879 three Bills were introduced:—1. The Bill of the British Medical Association. 2. Dr. Lush's Medical Bill, or a Bill promoted by the Medical Alliance Association, provided for the representation of the profession in the Council by the addition of four members—two for England, and one each for Scotland and Ireland, but the Crown nominees were reduced to three, and the corporate representatives to twelve, by combining the Universities in each division of the kingdom, and combining the Apothecaries' Hall in Ireland with the King and Queen's College of Physicians. Compulsory establishment of conjoint boards, registration of good foreign and colonial diplomas, amendment of 40th clause, &c., were also provided for. 3. The Duke of Richmond's Bill; the objects of the Bill were: To require all persons desiring to be placed on the Register to have both a medical and surgical qualification, to admit of the registration of foreign and colonial practitioners, to amend the 40th clause, and restrict the assumption of designations implying quali-

fications by unqualified persons, to secure uniformity of qualifications in the United Kingdom by the compulsory establishment of a conjoint board in each division of the kingdom by the union of Medical Authorities. Examination schemes are to be submitted to the Medical Council, and to receive the sanction of the Medical Council and the Privy Council. In default of a scheme for any division of the Kingdom, the Medical Council may frame one and submit it to the Privy Council. The Medical Board in each division is to grant qualifying certificates, which will confer on the holder the right to diplomas from the Medical Authorities. Women are admissible to examination and may obtain certificates of qualification and diplomas, but a share in the government of a Corporation is made dependent upon the will of the Corporations giving the diplomas. If the Corporations refuse the diplomas, the qualification of the Conjoint Board becomes registrable. Provision is made for the revocation and alteration of schemes—schemes may contain all details of fees, distribution of fees, &c. The Bill contains provisions for the examination, certification, and registration of midwives, prosecutions under the Act, recovery of penalties, amendment of the law relating to Lunacy Certificates and Ship Surgeons, and the regulation of the Medical Register. A deputation from the Obstetrical Society, which was the first body in England to direct attention to the necessity for legislation concerning the licensing and registration of women practising as midwives, has waited on the Duke of Richmond to point out the defects in the part of the Bill relating to midwives. The defects are chiefly two. In the first place, the scheme is wholly permissive. If any corporation, person, or persons choose to submit a scheme to the Council, the Council may, if it likes, lay the scheme before the Privy Council. This permissive plan would probably insure that nothing would be done. In the second place, there is no provision for uniformity—any place or part of the kingdom may submit a scheme. Schemes may totally differ, and some places, parts, or counties may have schemes working, whilst others may remain, as they are at present, without any at all. Compulsion and uniformity are the great desiderata.

The Bill of 1879 differs from that of 1878 in placing the framing of examination rules in the hands of the Medical Authorities instead of the Medical Council. The alteration was made at the wish of the Council itself. The Council is only to interfere actively if the

authorities have not provided a scheme before December 31st, 1880. The Association Bill also confides the making of examination rules to the Medical Authorities. A prominent defect in the Duke of Richmond's Bill, on its introduction, was that it did not provide sufficiently for the uniformity of the rules of the three Conjoint Boards, and the equality of examinations and fees. This defect was detected at once by the authorities at Trinity College, Dublin, and the Royal College of Surgeons in Ireland, and their action in the matter has been instrumental in obtaining modifications which will, to a considerable extent, effect the end desired. The Duke of Richmond has accepted an amendment by Lord Emly of the 15th clause, requiring the Medical Council to frame examination rules, and has promised to consider the question of fees. In the General Medical Council amendments of the same faulty 15th clause, proposed by Mr. Macnamara for the purpose of insuring uniformity in the curriculum, the fees, and the examinations in each division of the kingdom, have been carried by a large majority. These results are highly satisfactory. A weak part of the Bill is the addition to the Medical Register of a new qualification—the Licence in Medicine, Surgery, and Midwifery (Lic. M.S.M.)—which will be bestowed as the channel of admission to the Register on such persons as have passed their examinations at the Conjoint Boards, and been refused affiliation by the Corporations. And there is also likely to be a source of weakness and future trouble in the associated regulations requiring candidates to present themselves at the Conjoint Boards in the first instance, and, having passed the examinations and received their certificates of competency, then to ask to be affiliated to the Corporations, and to be allowed to receive their diplomas for the purpose of admission to the Medical Register. This duplicate method of admission to the Register has been rendered necessary by the successful entrance of women into the profession, and the opposition of some of the Corporations to their admission as members or licentiates. It is feared by some that this arrangement may lead to the final subversion of the Corporations, or the loss of influence, prestige, and income, and may be used as a lever for making connexion with the Corporations unnecessary. It will be said, if women may be admitted to the Register on the strength of the Lic. M.S.M., why compel men to have the trouble of entering through the Corporations? Uniformity in this matter is much to be desired for the sake of the Corporations them-

selves, and might have been obtained if all the Corporations had agreed to grant their diplomas to women (not involving any necessary share in the government). As it is, women are to be admitted to the conjoint examinations in which the opposing Corporations take an active part, and why, after this participation, the Corporations should object to give their diplomas to women who have passed, it is difficult to say. To the impartial outside observer this assent and this dissent appear like "straining at" or "straining off" "the gnat" and "swallowing the camel." But for this unfortunate refusal all candidates might have been accepted first at the Corporations, before being admitted to examination, and, after passing, have been entitled to the diplomas, which might have continued to constitute the sole means of admission to the Register. The Bill will insure the immediate operation of any Conjoint Board Scheme which has already received the sanction of the Medical Council and Privy Council. As this provision will bring into operation the English Scheme, some account of that Scheme must here be introduced.

The Conjoint Scheme comprises the formation of a joint committee, to be called the Committee of Reference, to be composed of two representatives of each of the seven English Licensing Corporations. The duties of the Committee are (1) to nominate the examiners for appointment by the several co-operating Medical Authorities; (2) to nominate on each occasion not less than twice the number of examiners to be appointed; (3) to arrange and superintend all matters relating to the examinations, in accordance with regulations approved by the co-operating medical authorities, or the majority of them; (4) to consider such questions in relation to the examinations as they may think fit, or such as shall be referred to them by any of the co-operating Medical Authorities, and to report their proceedings to all the said authorities. The total number of examiners to be appointed was fixed in the scheme of 1876 at fifty-two, to conduct examinations in anatomy, physiology, chemistry, materia medica, medical botany, pharmacy, medicine, surgery, midwifery, forensic medicine, and such other subjects as might be hereafter required. Of the fifty-two examiners, ten were assigned to anatomy and physiology; six to materia medica, and pharmacy, and medical botany; six to chemistry; ten to medicine; ten to midwifery; and ten to surgery. By the last amended scheme it is provided that the examiners are to be apportioned by the Royal

College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries, in such manner as they shall severally think fit, and to be appointed according to a plan agreed upon by them. The examiners are to be nominated and appointed annually; no examiner to hold office for more than five successive years, and no examiner who has continued in office for that period to be eligible for re-election until after the expiration of one year. No member of the Committee of Reference is eligible as examiner. One-fourth of the Committee of Reference is to go out of office annually, the retiring members being re-eligible. The fees of candidates are to be not less than 30 guineas—to be paid in two or more payments—and there are to be two or more professional examinations. Every candidate who has passed the final examination will be entitled to receive the Licence of the College of Physcians, the Membership of the College of Surgeons, and the Licence of the Apothecaries' Society. Members of English Universities not requiring the diplomas of the Corporations, who have been examined in the primary subjects, are to pass the final examination, and pay 5 guineas to the Board. Any of the co-operating authorities are at liberty to withdraw from the scheme at the end of five years by giving a year's notice in writing. The distribution of fees is to be as follows:—One-half of the fees to be devoted to the payment of examiners and examination expenses; the other half to be divided thus: towards the maintenance of the museum of the College of Surgeons as an institution of national as well as professional importance, &c., two-sixths; to the Royal College of Physicians in respect of qualifications to be granted, one-sixth; to the Royal College of Surgeons, similarly, two-sixths; and to the Apothecaries' Society, one-sixth.

The report of the Committee of Reference has been presented to the co-operating English Medical Authorities. With regard to examinations, it is proposed that there shall be three instead of two. For the first examination the subjects will be—chemistry, materia medica, medical botany, pharmacy, and osteology; for the second, anatomy and physiology; for the third, or final, the principles and practice of medicine, including medical anatomy and pathology, the principles and practice of surgery, including surgical anatomy and physiology, and midwifery and diseases of women. It is recommended that the first examination be held at the Apothecaries' Hall, the second at the College of Surgeons, and the third, or

final, partly at the College of Physicians and partly at the College of Surgeons.

The number of examiners recommended is forty-eight:—Five each in chemistry, materia medica, anatomy, and physiology; eight in midwifery; and ten each in medicine and surgery; the three co-operating authorities to appoint sixteen examiners. The College of Physicians would appoint some of the examiners in each subject; the Apothecaries' Hall in all but surgery; the College of Surgeons in anatomy, physiology, surgery, and midwifery only. The number of written questions in each subject is as a rule to be six; the time allowed for each paper three hours. The members of the Committee of Reference are to act as visitors of the examinations.

The Committee recommends the payment of examiners by percentages on the total available for the payment of examinations and expenses of examinations, thus:—Chemistry, 5·75 per cent.; materia medica and osteology each 7·25 per cent.; anatomy and physiology each 8·75 per cent.; medicine and surgery each 21·5 per cent.; midwifery, 12·5 per cent.; and incidental expenses, 6·75 per cent.

There is one great omission in the Duke of Richmond's Bill. It contains no provision for the representation of the medical profession at large in the Medical Council. The Government appears to be satisfied with the constitution of the Council, and with the manner in which the Council has fulfilled its duties under the Medical Act. The shortcomings of the Council are attributed not to inherent vice of constitution, but to the difficulties of the position in which the Council has been placed. The Government, moreover, is inclined to say to the profession:—"You recognise the advisability of the changes for which our Bill provides, and there will not be any considerable opposition to the Bill as it stands. The proposal to represent the profession will be warmly contested. Pass the Bill, therefore, and we will refer the question of representation to a Committee." It is doubtful whether this course would be a wise one for the profession to sanction. There is still time for clauses to be added to the Bill, giving representation to the profession, and by exerting pressure both on the Council and the Government—by adopting the policy of the importunate man who wanted his friend to lend him three loaves—the boon demanded may be obtained. This view appears to be supported by the offer of the

Government to Dr. Lush on Wednesday, the 12th of March. Dr. Lush having moved the second reading of his Bill, Lord George Hamilton suggested that Dr. Lush should consent to the adjournment of the debate, and if he did so the noble lord promised to move for a Committee to inquire into the constitution of the Medical Council. That Committee would report within a short period, and, if there were sufficient time to consider its recommendations, those recommendations, if approved, could be embodied in the Government Bill when it came down from the House of Lords. The debate was adjourned accordingly.

At a crisis like the present it is of particular importance that the arguments urged in support of the claim of the profession should be sound and convincing. The chief argument usually employed is that the Council is maintained out of moneys levied from the profession by taxation, and that taxation and representation should go together. But the profession is not taxed in the ordinary sense of the term. The legal profession is taxed annually, and has no representation. The preliminary fee for registration is paid as an equivalent for certain privileges and advantages—it is merely an entrance fee. If there were any calls made on the profession for money—any taxes imposed liable to be increased or capable of diminution, or in any way under the control of the profession—the profession might ask for representation on that ground, but this is not the case; and so far as the custody of the Medical Register is concerned, the profession might be satisfied to leave it in the hands of the Council as at present constituted. But the Council is a Council of Medical Education, and is intrusted not merely with judicial functions as the keepers of the Register, but with legislative functions. The Council makes laws for the education and examination of all persons desirous of entering the profession. Now there are three parties interested in these laws—the public at large, the Corporations to whom the State has granted charters intrusting them with the power of the keys, and the medical profession. The public is represented on a Council of twenty-four members by the six Crown nominees; the nineteen Corporations are abundantly represented by seventeen members; the Council is represented by the president, elected by the Council; the profession alone is unrepresented. On the Council are physicians and surgeons of the first rank from the metropolis and our ancient and modern seats of learning—men who represent the highest culture in science and art, but whose

sympathies are naturally with the governing bodies of the Corporations, with examiners, and teachers, and rulers, rather than with the ruled, and the taught, and the rank and file. The general practitioners, who bear the burden and the heat of the day, who have passed through the schools, and could speak of deficiencies in medical education which require to be remedied—the men who have occupied the benches of the lecture theatres, and listened to the lectures of the "grave and reverend signiors" now sitting on the Council; who are in a position to compare the daily exigencies of medical practice and medical work with the means adopted at the schools and by the central authorities to meet them; the men in hourly contact with all classes of the community; the men who are ignored at the Colleges to which they may belong—these are the men who, apart from the Corporations, are entirely unrepresented. To return a general practitioner to represent a Corporation is quite a distinct thing from returning a general practitioner to represent general practitioners. For the sake of the public as well as the profession, this omission is greatly to be regretted. Of the 23,000 medical practitioners on the Medical Register only 1,000, as our table has shown, can be said to be in any way represented on the Council. If it be asked what advantage would accrue to the public by the addition of representatives of the mass of the profession, we reply much every way. The men who are educated at the schools would pass into the profession better fitted for the service of the public; the Corporations would become more catholic in their constitutions and sympathies, and more useful to medical men; the resistance of Corporations to improvements would be diminished; it would be the interest of the profession, as it is of the public, to exclude badly educated men, and examinations would become more efficient; greater economy would be exercised in the Council; harmony of feeling and aim for the good of the public would be established between the Council and the profession; the profession would be benefited by having a legitimate outlet for its views, by improvement in the class of men admitted into its ranks, and by elevation in the esteem of the public; the Council would be benefited by the increased weight which its representations would have with the Government and the Legislature, and by enjoying the sympathy and support of the whole body of the profession.

The fact that the Council is now consulted by the Government

on all public medical questions, is an additional argument in favour of the justice of the claim, and the public expediency of granting it. It is for the public advantage that all measures should be adequately discussed, and it is especially desirable to have the views of the rank and file, on whom generally devolves the duty of carrying out the details of measures affecting the routine work of the medical profession.

With regard to the mode in which representation should be conferred, it has been settled, within the profession itself, in favour of the method of direct representation, and in regard to direct representation two ways of obtaining it have been suggested:—The first way is the simple addition of members to the Council; the other, the substitution of representatives of the profession for a certain number of corporate representatives and Crown nominees, so that the Council be not made any larger than it is. We think that it will be extremely difficult to disfranchise any of the Corporations, and very undesirable to diminish the number of Crown nominees, even if this were practicable. Half of the advantage of representation of the profession would be lost if it were gained at the expense of diminishing the public-spirited nominees of the Crown. More strength to contend against the corporate element is needed, and the addition of six representatives of the profession would suffice for the purpose. Although the Council is large enough, yet the service of committees would usefully employ the larger number. Excess of loquacity and waste of time by obstruction would be diminished if each Corporation were charged with the maintenance of its own representative. We have no objection to the disfranchisement of at least three of the medical corporations:—1, the University of Durham, which possesses little medical influence and little educational importance, and might well be united either with Oxford or Cambridge; 2, the Faculty of Physicians and Surgeons of Glasgow, which should certainly be altogether amalgamated with the College of Surgeons of Edinburgh (the two should form "The Royal College of Surgeons of Scotland"); and, 3, the Apothecaries' Hall of Ireland, which might either be united in representation with the English Society or with the College of Physicians in Ireland. The Apothecaries' Society in England licenses so many medical men that it seems hardly fair to suggest its disfranchisement. The chief objection to suggesting disfranchisement is the certainty of creating opposition in Parliament, which might imperil representation of the profession altogether. It has been suggested

that the members or licentiates of Corporations should elect the representatives instead of the Councils. There are several objections to this plan, but the chief is that the profession would probably be disappointed at the result. It is open to doubt whether this plan would in anywise change or leaven the present Council, and it is certain to meet with the warmest opposition from those now in authority at the Corporations. The same member could scarcely be expected to represent both the interest of the Corporation for which he sat and professional interests. The two would sometimes clash, and the representative would find that he could not serve two masters. The measure would produce an undesirable uniformity of constituency—the electors for all the Corporations being of the one class of general practitioners, whereas it is desirable that the interests represented should be of a varied character. Thirdly, the same electors would be voting at several Corporations, as they would possess a plurality of qualifications. The interests of the Crown, of the Public, of the Council, of the Corporations, of the Universities, of arts and science, and medicine and surgery, physicians, surgeons, and general practitioners, should all be represented in the General Medical Council, and that will be the best plan which combines all these elements in due proportion, whilst exciting as little Parliamentary and Government opposition as possible. Even with all prudence it will be very difficult to obtain representation from the Government, and to carry it successfully through the Legislature. Some of the heads of the profession are opposed to representation of the profession altogether, as unnecessary, as being promoted by wirepullers, and as involving immense trouble and expense for an inadequate result. The *Times*, with remarkable inconsistency, opposes direct representation mainly on the ground that the members of the profession are so indifferent to the privilege that they would throw voting papers into the waste-paper basket, and leave the election to those who had nothing else to do, and speaks in favour of the election of the representatives of the Corporations by their members or licentiates—a measure which would be attended by exactly the same results as the other. Undoubtedly the establishment of a machinery for elections, the conduct of elections, and allowances to professional representatives, would be attended with difficulty and expense, but these are trivial matters if the change is really desirable on public grounds. It is difficult to estimate the depth of professional feeling in the matter,

but it is a fact that, on more than one occasion, many thousand members of the profession have expressed their opinions and signed memorials in favour of the privilege.

Another set of objections to the representation of the profession comprises the turmoil and agitation incidental to popular elections, the prominence given to talkative busybodies instead of to men of sterling worth, and further objections are raised of a purely speculative and prophetic description—such, for instance, as that the Council would suffer in its character, lose its position and prestige, become more talkative, waste more time, do less work, be more quarrelsome, and suffer utter ruin and wreck. It is absolutely impossible to answer predictions except by making predictions of an opposite kind, and both classes of prediction would enjoy the same value—in other words, have no value at all. Attention should be confined entirely to those objections which embody facts and not mere speculations. But it may be noted that most of the speculative objections proceed on the evidently erroneous assumption that the members of the profession are not sufficiently educated to discern real worth from noisy vulgarity, and that general practitioners are not capable of calm and dignified deliberation. Doubtless, as has been previously said, there are great difficulties in connexion with popular elections; but, after all, such difficulties are merely mechanical, and the creation of a machinery for collecting the votes of the profession would ultimately prove very advantageous in promoting the organisation and union of its members for the common good.

## POOR LAW MEDICAL SERVICE.

Prior to the reign of Henry VIII. paupers and beggars were sustained by private charity. Alms were daily distributed at the gates of religious houses. On the dissolution of the Monasteries it became necessary for the State to provide for the poor, and to pass statutes to regulate relief. The poor have always been divisible into two sets—those disabled or unable to work on account of infirmity, sickness, infancy, and old age, and the able-bodied who either cannot or will not find employment. For the support of the former class within the metropolis and its suburbs, the "Spytells" of Saint Bartholomew, Saint Thomas à Becket, Saint Mary Bethlem and Christ, were founded and endowed; for the benefit and correction of the latter, Bridewell.

The oldest of these institutions was St. Bartholomew's, which was established in 1123, by Raherus or Rayhere, Minstrel of Henry I., in connexion with his foundation of the Church and Priory of St. Bartholomew. The Charity was designed as a "hospital for a master, brethren and sisters, and for poor diseased persons till they got well, for women with child until delivered, and for children born there till they were seven years of age, if their mothers had died in the hospital." St. Thomas's Hospital was founded in 1215, by Peter de Rupibus or De la Roche, Bishop of Winchester, who removed it from the site on which it had been erected by the Canons of the Priory of St. Mary Overie for use as a church after the destruction of their Priory by fire in 1507, to a place where Richard, Prior of Bermondsey, had built two years previously an Almonry for the reception of poor children and proselytes. Peter dedicated the hospital to Thomas à Becket, calling it "The Spitil of St. Thomas the Martyr of Canterbury," and endowing it with land to the value of £343 a year. The hospital was ceded in 1482, by the Prior of Bermondsey, to a President, Master, and Brethren. In the 26th year of Henry VIII. the annual revenue was found to be £347 3s. 6d. The charity was rather an almshouse than a hospital. Bethlem, or the Hospital of St. Mary's, was founded by Simon FitzMary in 1247 for distracted persons. When Henry VIII. was excommunicated by Paul III. in 1535, he retaliated by declaring himself head of the church within his own dominions, and by suppressing the religious houses and confiscating their revenues. Among the 110 hospitals dissolved were the three spytells above mentioned. All their inmates were turned into the streets and thrown upon private and municipal charity. Sir Richard Gresham, the Lord Mayor of London (father of Sir Thomas Gresham), and the aldermen and commonalty addressed a petition to Henry in 1544 "for the ayde and comforte of the poor sykke, blynde, aged and impotent persons being not hable to help themselves; not havynge any place certeyn wheryn they may be lodged, cherysshed, and refresshed tyll they be cured and holpen of their dyseases and syknesse." These "miserable people" were then "lyenge in the streets offending every clene person passing by the way with their filthye and nasty savours." The petition prayed that the King would grant to the Mayor and his Brethren of the Cytye of London "the order, rule, and dispocion, and govournance of the sayd hospytals, with the rents appertaynyng to

the same, so that the sick, needy, and indygent persons" should "be refreshed, mayntayned, and comforted, fownde, heled, and cured of theyre infyrmyties frankly and freely by physicions, surgeons, and appotecarys whiche" should "have salary, stypend, and wages only to attend for that intent and purpose." The King being "moved thereto with great pity for and towards the relief and succour, and help of the poor aged, sick, low, and impotent people lying about and begging in the common streets of the City of London, and the suburbs of the same, and infected with divers great and horrible sicknesses and diseases" granted the prayer of the petition. St. Bartholomew's Hospital was refounded by Royal Charter, and granted a large share of its former revenues. The survey, rule, order, and government of the hospital was vested in four aldermen and eight of the Common Council. The hospital contained 100 beds, and its medical staff consisted of a physician and three surgeons in daily attendance upon all the patients. The immediate superintendence of the hospital for many years after the granting of the charter was committed to Thomas Vicary, Sergeant Surgeon to Henry VIII., Edward VI., Mary, and Elizabeth, and author of "The Englishman's Treasure"—the first work on anatomy published in the English language. Among the celebrated medical men attached to the hospital, after its re-establishment, were William Clowes and John Woodhall, the principal military surgeons of the time. The immortal Harvey was appointed physician to the hospital in 1609, and held the office 34 years. The great discoverer of the circulation of the blood was highly honoured and esteemed by the governors.

St. Thomas' Hospital was surrendered to the King on the 15th of July, 1538, and not long afterwards the citizens of London purchased of the Crown some of its landed estates. As the loss of the hospital was severely felt, Henry purposed granting the unoccupied building to the City, under the name of the Hospital of the Holy Trinity, for the accommodation of maimed, wounded, and sick soldiers, but death frustrated his design. After the death of Henry a board of inquiry was formed by the citizens, and resulted in the purchase of the hospital by the citizens with funds raised by subscription. They also bought the dissolved house of the Franciscans, or Grey Friars, near St. Bartholomew's Hospital. The Grey Friars became Christ's Hospital. On the 5th of October, 1552, the Lord Mayor and citizens, with the consent of the King,

met and "constituted themselves Governors of the Hospitals and almoners of the money collected." The Hospital of the Holy Trinity, or St. Thomas's, was named, in compliment to King Edward VI., the "King's Hospital," and devoted to the reception of "260 wounded soldiers, blind, maimed, sick, and helpless objects." It was decided that 380 children should be received into Christ's Hospital. On the 20th of June, 1553, Edward granted, by charter, to the City the old Palace of Bridewell, the residence of Cardinal Wolsey, in the Parish of St. Breyed, in Fleet-street, and all and singular houses, edifices, lands, tenements, rents, reversions, and services, gardens, void grounds, places, ways, easements, profits, and commodities whatsoever to the said house in Bridewell-place, in anywise belonging or appertaining. Bridewell was intended for the correction of "all sorts of rogues, vagrants, idle women and children, which beg and wander, and lie in the streets, and for teaching some profitable occupation to children of 12 years old and upwards, who had been brought up and taught at Christ's Hospital. At the same time that the charter was given to Bridewell the Lord Mayor and Commonalty of the City of London were incorporated in succession as perpetual governors also of St. Bartholomew's, Christ's, and the King's Hospitals. The last now became the Hospital of Saint Thomas the Apostle. The lands belonging to the Palace of Savoy were conferred jointly on St. Thomas's Hospital, Christ's, and Bridewell Hospitals.

From time to time disputes and differences concerning the management of the hospitals of Henry VIII. and Edward VI. arose between the Corporations and Court of Aldermen and the presidents, treasurers, and governors. To remedy these differences an Act of Parliament was passed in the twenty-second year of the reign of George III. It ordained that twelve persons, being members of the Common Council, should be sent to St. Bartholomew's Hospital, and twelve others to St. Thomas's, to be governors thereof respectively, and that the Lord Mayor, Aldermen, and Members of the Court of Common Council, and other governors, duly elected, should have good right, full power, and absolute authority, from time to time, and at all times thereafter, to nominate, elect, and appoint the presidents, treasurers, and all other officers and ministers of and for the said hospitals respectively, and to do every other act, matter, or thing, expedient to be done for the good government of the same several hospitals. Originally the

Hospitals of St. Bartholomew and St. Thomas were intended for paupers. They were pauper sick asylums, which received all the poor, lame, and diseased persons who were found destitute in the streets, and were brought before the authorities of Bridewell. The deed of covenant between Henry VIII. and the Corporation of London expressly speaks of St. Bartholomew's as intended to be a place and house for the relief and sustentation of poor people, and calls it the "House of the Poore." This character was gradually lost in both cases.

As the Royal Hospitals were not sufficient for the reception of the poor throughout the kingdom, laws were passed to secure for them a proper provision. The most important of these was the statute 43 Eliz., c. 2, the foundation of the modern poor law, which ordained that *overseers* of the poor should be appointed in every parish, and that every poor person should either be relieved or provided with work out of funds to be raised by the parishes. The law of *relief* was combined with the law of *settlement.* Those unable or unwilling to work were compelled to remain in the parishes where they were *settled—i.e.*, where they were born or had made their abode for three years, or, in the case of vagabonds, for one year only. The statute 13 & 14 Car. II., c. 12, abridged the period of settlement to forty days, and provided for the removal of paupers who had intruded into any parish to the parish where they were last legally settled. For a long time the *overseers* of the respective parishes were charged both with the collection of the rate for the relief of the poor and the whole of the arrangements for its management and distribution. As the duties were not often performed to the satisfaction of the public, the Legislature interfered. Among other measures which were brought forward was Gilbert's Act, 22 Geo. III., c. 83, which authorised any parish to appoint *guardians* to act instead of overseers in all matters relative to the relief and management of the poor, and to enter into voluntary union with other parishes for the maintenance, employment, and lodgment of paupers. This and the Select Vestry Act, 59 Geo. III., c. 12, were not efficacious, because they were merely permissive. The evils of mismanagement of the funds raised by the parishes for the relief of the poor increased. It was found that the money was wasted on idle vagabonds who would not work, to the exclusion of the really necessitous and impotent, and that it was difficult to introduce reforms into parishes,

because they owned no allegiance to any central authority, and that the small size of the parishes made relief expensive and difficult. A Royal Commission of Inquiry, in 1833, resulted in the Poor Law Amendment Act, 1834, 4 & 5 William IV., c. 76. The general management of the poor and of the relief funds was vested for a limited period in Poor Law Commissioners, who had power to make rules for the guidance of the parochial authorities. Parishes were consolidated into *Unions*. The administration of poor relief was entrusted to *Boards of Guardians*, composed partly of *ex officio* members and partly of members elected by the ratepayers. The division into Unions was carried out by assistant-commissioners. According to Dr. Rogers, the Boards of Guardians did not always give effect to the orders of the Commissioners. "One rule was that no district should have a population of more than 15,000 or an area of more than 15,000 acres, and that no officer should hold more than one district. My investigations into the administration of the poor law have taught me that there are 665 districts which exceed 15,000 acres, and 205 which exceed 15,000 persons; whilst there are 627 districts which are held by 291 medical officers, the salaries ranging, with medicines to find, from 8d. to 7s. a case of sickness. This muddle in our poor law medical relief system, equally with the discreditable chaos which holds in our sanitary arrangements, has arisen mainly from the same cause—the employment of ignorant lay officials to deal with purely medical matters."—*British Medical Journal*, August 26, 1876.

In 1847 the Commission was replaced by a permanent Board, called "The Poor Law Board" (10 & 11 Vict. c. 109, and 30 & 31 Vict. c. 106), with power to direct that relief of the poor in any parish should be administered by a Board of Guardians, to be elected by the owners of property and ratepayers; to appoint Inspectors to visit workhouses and attend meetings of Guardians, and to consolidate at its own discretion two or more parishes into one body under a single Board of Guardians. Each Union thus effected is to have a common workhouse provided and maintained at their common expense, and also a *common fund* to which each of the parishes in the Union should contribute. By the Union Chargeability Act, 1865 (28 & 29 Vict.) all the cost of the relief of the union poor, of wayfarers and foundlings, of the burial of the workhouse paupers, the relief of persons temporarily disabled by accident or sickness, pauper lunatics, vaccination,

and registration, were made chargeable to the common fund. Under the Poor Law Amendment Act these expenses of their own poor had to be defrayed by the parishes individually and separately.

The administration of the English Poor Laws is now under the control of a central Board, called the Local Government Board. This Board is the lineal descendant of the Poor Law Board, and was established in 1871 by Act of Parliament (34 & 35 Vict. c. 70). It consists of a President appointed by the Crown, the President of the Privy Council, all the Principal Secretaries of State, the Lord Privy Seal, and the Chancellor of the Exchequer. Further, the Board has been invested with the powers and duties of the Secretary of State in sanitary matters, with the administration of the Home Office in regard to the Highway Acts and roads and bridges, the administration of the Acts relating to public health, the registration of births, deaths, and marriages, drainage, &c., with the powers and duties of the General Board of Health and of the Privy Council in regard to the prevention of disease and vaccination, and with some of the duties of the Board of Trade under the Alkali Act and certain Gas and Water Supply Acts. The Local Government Board has authority to issue orders for the speedy interment of the dead, house to house visitation, the dispensing of medicines, preventing the spread of disease, and providing medical aid and accommodation for the benefit of persons afflicted or threatened with epidemic, endemic, and contagious diseases. Inspectors are appointed by the Board with powers similar to those previously possessed by Poor Law Inspectors, and extending to all sanitary matters. The inspectors have the right of attending meetings of sanitary authorities when directed by the Board, and when any inquiry has been instituted by the Board, the right of calling for papers and accounts, summoning and examining witnesses, &c.

In England and Wales there are 650 unions—597 in England and 53 in Wales. The number of parishes in England is 13,717 and in Wales 1,194, making a total of 14,911. As a rule each Union is provided with a workhouse for the reception of paupers applying for relief indoors. Each Union is divided into districts, and each district, each workhouse, and the workhouse schools, have their medical officers. According to our reckoning (which seems to be too low), the number of districts in England and Wales is

3,317. The returns of the Local Government Board for 1876 and 1877 give the following figures:—

| Provinces | 1876 | 1877 |
|---|---|---|
| Medical Officers of Workhouses, - - - | 670 | 672 |
| District Medical Officers, or rather Offices, as several Medical Officers hold more than one appointment, - - - - - - | 3,329 | 3,332 |
| Metropolis | | |
| Medical Officers of Workhouses: Infirmaries, Asylums, and Schools, - - - - - | — | 73 |
| Medical Officers of Districts, - - - | — | 151 |

| | Provinces. Workhouses | | Metropolis. |
|---|---|---|---|
| | 1876 | 1877 | 1877 |
| Number of Medical Officers who resigned, | 1 | 4 | — |
| ,, dismissed for irregularities, - | 10 | 10 | 2 |

The sum raised by poor rates during the year ending Lady Day, 1877, was £12,049,046; the receipts in aid, inclusive of £560,477, the Treasury subventions and payments for Government property, amounted to £899,128; forming a total receipt of £12,948,174. *One-third* of the whole poor rate now levied is expended for other purposes than poor relief. In 1876–77 relief to the poor cost £7,400,034, as against £7,335,858 in the preceding year. In-maintenance cost £1,613,757, out-relief £2,616,465. The total medical relief disbursed by the Poor Law Guardians, including salaries to the medical officers, extra medical fees, medical appliances, and drugs, was £286,930—or, adding the disbursements for medical relief at District Pauper Schools, £1,632; Metropolitan Asylums District Board, £4,047; Central London Sick Asylum, £1,320; Poplar and Stepney Sick Asylum, £760, £294,689. The maintenance of lunatics in asylums or licensed houses cost £285,086.

The estimated population in 1877 was 24,460,000. The mean number of paupers of all classes (including children) at one time in receipt of relief in England was—In-door, 149,611, and out-door, 570,338—a total of 719,949, or 2·9 per cent. of the population. This is a marked decrease compared with former years. In 1870 1,032,800 persons, on an average, were in receipt of relief, or 4·7 of the population; in 1875, 800,914, or 3·4; and in 1876, 749,476, or 3·1. The decrease has been greater in the out-door than the in-door

relief. The mean number of adult *able-bodied* paupers (exclusive of vagrants) at one time in receipt of relief in England was 16,446 in-door and 79,952 out-door, or a total of 89,398—a ratio per cent. of adult able-bodied to other paupers of 12·4. The decrease in this class in recent years is also very striking. In 1870 the figures were—adult able-bodied: in-door, 25,200; out-door, 149,600; total, 174,800, or 16·9 per cent. of the total paupers; in 1875—in-door, 18,487; out-door, 89,918; total, 108,405, 13·5 per cent.; and in 1876—in-door, 16,059; out-door, 79,958; total, 96,017, or 12·8 per cent.

On the 1st of January, 1877, the total number of paupers was 733,003—161,021 in-door and 571,982 out-door. The able-bodied classes comprised:—Adult males, 7,206 in-door and 13,680 out-door—total, 20,886; adult females, 11,787 in-door and 60,133 out-door—total, 71,920; children under 16, 14,500 in-door and 153,798 out-door—total, 168,298; vagrants, 3,830 in-door and 343 out-door—total, 4,173. The classes not able-bodied comprised:—Adult males, 43,716 in-door and 75,607 out-door—total, 119,323; adult females, 30,834 in-door and 195,979 out-door—total, 226,813; children under 16, 33,096 in-door and 31,726 out-door—total, 64,822. The total number of insane persons (including imbeciles and idiots) was 56,768—comprising 24,339 males, 31,425 females, and 1,004 children.

The year 1867 marks an epoch in the history of poor law medical reform in England. Prior to that year the arrangements in the Workhouse Infirmaries for the accommodation and treatment of sick and infirm paupers were disgraceful and deplorable. Publicity was given to the existing abuses through the instrumentality of the voluntary agencies which had been at work for eleven years to promote poor law medical reform. The labours of Richard Griffin and of his successor, Joseph Rogers, the exertions of the "Workhouse Infirmaries" and "Poor Law Medical Officers'" Associations, the inquiry instituted in 1861 by the House of Commons, and the Report of its Committee, the zealous efforts of the ladies belonging to the Workhouse Visiting Society, and of the secretary, Miss Twining, the case of Richard Gibson, and lastly, the very able and painfully interesting exposure of the condition of the Workhouse Infirmaries in the metropolis by the *Lancet* Commissioners, the late Dr. Anstie, Mr. Ernest Hart, and Dr. Carr, enlightened the public mind and rendered legislation a necessity. It was shown

that many of the buildings used for Infirmaries were extremely defective in construction, some being quite unfit for the purpose and others requiring great alterations. The chief of the evils were—inadequate lighting and ventilation; cubic space for each patient dangerously reduced below 1,000 cubic feet, in some cases to as low as 400 or 500 cubic feet; closets opening into the wards; untrapped drains; utensils used as hand-basins by the bedridden inmates; entire absence of classification of patients, sick and able-bodied, acute and chronic cases, epileptics, imbeciles, and medical and surgical diseases being mixed indiscriminately together; want of proper isolation-wards for infectious and contagious diseases; the miserably cheerless aspect of many of the wards, and especially for the poor lunatic, whose outlook was confined to the antics of his fellow-sufferers and to the bare drab-coloured and white-washed walls; nursing entrusted by day to paupers, often old and infirm, and either unprincipled or incapable, and at night, perhaps, totally unprovided for; patients left without medicine for days through the want of paid nurses; beds and bedding too short and scanty; Medical Officers overburdened with work, wretchedly paid, required to supervise from 120 to 400 patients each, to provide and dispense medicines at their own expense, and insufficiently supplied with the necessary medical and surgical appliances. Some of the infirmaries were surrounded by every kind of nuisance, such as establishments for bone-boiling, and grease and catgut manufactories, whilst the Guardians of the Strand Workhouse had introduced a carpet-beating business, which carried on its operations close to the windows of the Workhouse, yielding an income of £600 a year to the Guardians. These and other abuses led to the introduction by Mr. Hardy, the Secretary of State for the Home Department, of the Metropolitan Poor Bill of 1867. Mr. Hardy assumed that he had to deal with about 34,000 persons, including children, and he proposed to place all imbeciles in separate establishments; to remove all children above two years to separate schools; to provide accommodation for 2,000 lunatics and about 800 fever and smallpox cases, either by erecting new buildings or hiring old ones; to institute district dispensaries for the supply of medicines; to repeal ten Local Acts; to place the whole Metropolis under the Poor Law Board; to form new boards of management for the sick asylums, and to throw certain charges on the Common Poor Fund.

Accordingly, the Act contains clauses for providing sick asylums,

for the formation of districts by the conjunction of parishes, and for the institution of a body of managers of the asylum or asylums of each district, to be called the Managers of the —— Asylum District, and to be chosen partly by election by guardians and ratepayers and partly by nomination by the Poor Law Board—the nominated members not to exceed one-third. The Poor Law Board is to direct the building of the dispensaries, and the dispensaries are to be managed by committees elected by the Guardians of a Union or parish from among themselves or the ratepayers. Places convenient for seeing patients are to be provided for the medical officers, and the guardians are to supply all medicines, &c., on the requisition of the dispensary committees. In pursuance of the Act, three sick asylums have been erected—one at Bromley, for Poplar and Stepney (586 beds), "The Poplar and Stepney Sick Asylum;" one at Highgate (523 beds), and one in Cleveland-street (264 beds)—the two latter being called "The Central London Sick Asylums," and being for the Union of St. Giles and St. George's Bloomsbury, St. Pancras, Strand, and Westminster. Sixteen separate infirmaries are now open—viz., for Camberwell, Chelsea, Greenwich, Hackney, Islington, Kensington, Lambeth, City of London, St. George's, St. George's in the East, St. Olave's, St. Saviour's, Shoreditch, Wandsworth and Clapham, Whitechapel and Woolwich, and two are in course of erection for Holborn and Marylebone. The sick are still retained in mixed workhouses in Bethnal-green, Fulham, Lewisham, Paddington, Hampstead, and Mile-end, Oldtown. For the reception of smallpox patients, the Homerton Smallpox Hospital (102 beds), the Stockwell Hospital (102 beds), and the Hampstead, Fulham, and Deptford Hospitals have been erected; for fever patients, the Homerton Fever Hospital (200 beds) and the Stockwell Fever Hospital (171 beds); for the pauper idiots of London, the Asylum for Idiots, Lower Clapton (353 beds); and for pauper lunatics, the Caterham Asylum (1,882 beds) and the Leavesden Asylum (1,809 beds).

Prior to 1867 the expense of the relief of the houseless poor was the only item of poor law expenditure which was borne as a charge by the entire Metropolis. Hardy's Act established the Metropolitan Common Poor Fund, obtained by contributions levied at an equal rate in the pound on the rateable value of each union, parish, and place in the metropolitan area. The maintenance of pauper lunatics, and of fever and smallpox patients, medicine

and medical and surgical appliances supplied by guardians to the poor in receipt of relief, salaries of officers whose appointments had been sanctioned by the Board, compensation to officers for loss of office, fees for registration of births and deaths, vaccination fees and other expenses of vaccination, maintenance of pauper children in district, separate, certificated, and licensed schools, and the expenses of the houseless poor, were thrown upon the fund. In 1870 an Act was passed which made the cost of the maintenance of adult paupers in workhouses and asylums to the extent of 5d. a head a day, and the cost of the rations of in-door officers according to a scale fixed by the Local Government Board, chargeable to the fund. The chief items of the common fund for 1876–7 were as follows:—Maintenance of in-door paupers, pauper children, insane poor, paupers suffering from smallpox or fevers, school fees for out-door pauper children, and vagrants, £456,954; medicine and medical and surgical appliances, £8,257; salaries, rations, and compensations, £174,947; registration fees, £10,408; vaccination fees and expenses, £11,347—total, £661,913. The total expenditure for relief in the metropolis during the same period was £1,571,917.

The very striking fact brought out in the Reports of the Local Government Board—that more than 87 per cent. of the total pauperism of the country is due to sickness—gives increased importance to the characteristics of the present system of medical relief. These characteristics may be summarised as follows:—

1. The appointment and remuneration of the medical officers of districts and workhouses are in the hands of the guardians of the unions; hence,

2. Every conceivable rate of payment is adopted in the different unions. There is no kind of uniformity. The salaries vary from 8d. to 7s. a case of sickness, and, according to Dr. Rogers, the rule has been that in those places where the sickness is greatest the payments are the least. The returns of the Local Government Board, already quoted, show that there are about 4,228 medical men employed in the Poor Law service, and that the expenditure on medical relief is about £294,000. If this sum were equally divided amongst the medical officers it would give to each no more than £69 a-year, including all extras; and out of this sum all drugs and appliances would have to come. The total constant average number of sick and afflicted paupers in England and Wales is more

than 630,000, or an average of about 149 to each medical officer continually under care and supervision. For taking care of one sick pauper throughout the year, supplying him or her with medicines and appliances, perhaps travelling many times and many miles to see him, the medical officer would receive less than ten shillings. This is the average all round, but, inasmuch as some are paid by comparison with munificence, and have all drugs and appliances found them, the residuum must suffer in proportion. To illustrate the inequality which prevails, take the two first unions in the "Medical Directory" for 1878—Ampthill and Bedford. Ampthill has a population of 17,536, and is divided into four districts—an *average* of one medical man to 4,384 of the population; but adding the workhouse, one to 3,507. The total sum distributed in salaries is £410, or an average of £82 to each medical officer per annum for attending to an average number of say 70 sick or disabled persons. We have only reckoned the sick, &c., as 2 per cent. of the population. Bedford has a population of 41,665, and is divided into eight districts. Reckoning in the union there is an average of one medical man to 4,629 of the population. The total of the salaries is £277 6s. 11d., or £30 16s. 9d. each. Without including the workhouse, for which the medical officer receives £80, the *average* for the districts is only £24 12s. 1d. for the supervision of about 100 sick and infirm throughout the year. In Ampthill Union, therefore, the medical officer receives an *average* of 23s. for attending a pauper from the 1st of January to the 31st of December, and in Bedford Union less than 5s.

3. In the Metropolis, in pursuance of Hardy's Act, and in some provincial unions, medicines are entirely provided. A Parliamentary Return obtained by Dr. Lush in 1877 showed that out of 620 provincial unions 290 complied with the recommendations of the Select Committee, and 177 did not comply at all. 73 unions found cod-liver oil and quinine, 2 quinine only. 85 unions in England and 8 in Wales provided medicines entirely.

4. Compensation to medical officers for extraordinary services, in addition to the regular salary, may be paid by the guardians of a union, with the approval of the Local Government Board. For attending a woman in labour, or immediately after its completion, a fee of not less than 10s. or more than 20s. is allowed, and where instruments have to be employed, or any great difficulty has occurred, or a long after-attendance has been necessary, £2; for

compound fractures of the thigh, or compound fractures or compound dislocations of the leg, or amputation of leg, arm, foot, or hand, or operation for strangulated hernia, £5; for simple fractures or simple dislocations of the thigh or leg, including fracture of the neck of the thigh bone, or of the malleolus enternus, but not of the knee-cap, tarsus, metatarsus, or toes, £3; for dislocation, or simple or compound fractures of the arm, including dislocation of the shoulder, elbow, or wrist, and fracture of the humerus, ulna, and radius, but not fracture of the ribs, clavicle, scapula, acromion, elbow, carpus, metacarpus, fingers or thumbs, £1. These fees include the provision of necessary appliances and after-treatment. The payment of these fees for an operation is saddled with two onerous conditions. If the patient does not survive the operation more than 36 hours only half the regular fee is paid. The medical officer who proposes to amputate a patient's limb must, except in cases of sudden accident immediately threatening life, obtain, at his own cost, and prior to the operation, the advice of a registered practitioner qualified to practise medicine and surgery in England and Wales, and a certificate stating that it was right and proper that such amputation should be then performed.

5. Superannuation may be granted by guardians to a medical officer who has attained the age of sixty years and served twenty years. The allowance must not exceed two-thirds of the salary. It will be noted that the award of the superannuation is at the option of the guardians, the Superannuation Act, 1870 (33 & 34 Vict., c. 94), being of a permissive character. Hence, while some have obtained a grant, others have been refused.

6. Before a sick person is entitled to the services of a Poor Law Medical Officer, and before the medical officer can claim any extra fee for attendance on him, the sick person must obtain a medical order from the relieving officer. The number of relieving officers in the provinces of England and Wales is 1,385, and of assistant relieving officers, 51. In the Metropolitan Area there are 141 relieving officers and 30 assistant relieving officers. The average number of relieving officers in county unions is a little over 2 or 2·23. The relieving officer has to visit personally, at least once a week, each of his parishes, and he may be miles away from his residence when a case of emergency occurs, which the medical officer is called upon to attend. A patient, for instance, with a strangulated hernia, or a compound fracture of the leg attended with hæmorrhage, living

near the medical officer, sends for him. The patient is not on the parish, but payment of the medical officer would compel him to apply for parish relief. The medical officer is at a loss to know to whom he can look for his fee. If he attends without an order, he runs the risk of refusal of an order—because the patient is not yet quite pauperised—and loss of his fee; if he attends, and looks to the patient to pay him, either the patient cannot pay, or, as the enforcement of the doctor's claim would at once pauperise the patient, the doctor is too humane to press for his fee; and yet it may be all-important for the doctor himself, living from hand to mouth, with a wife and family to support, to receive some remuneration for his services. If the doctor refuses to attend without an order, valuable time is lost, the patient's prospects are jeopardised, and the doctor is denounced as a brute and a monster of inhumanity. This is the system of our Poor Law. To the sick person applying for medical relief is attached the stigma of pauperism; on the doctor is cast all the burden of charity, or the opprobrium of refusing it. Wretchedly underpaid for his ordinary services, he is thrown in emergencies upon the horns of a most painful dilemma, from which he should be altogether exempt.

7. Since the passing of Hardy's Act the sick poor in the Metropolis have been comfortably housed, well cared for, well nursed, and have received more adequate medical attendance. Pauper nursing has been replaced by skilled and paid nursing, medicines have been provided, and dispensaries have been appointed at the various workhouse infirmaries. In only a small proportion of country workhouses have the same advances been made. Some of these establishments exemplify in a minor degree some of the evils which were rampant in the Metropolis before 1867—want of classification of the sick, defective construction, pauper nursing, &c. The returns of the Local Government Board show that at the Provincial union workhouses in 1877 there were 167 male nurses, and 925 females, and 9 dispensers. This is for 620 of the 650 workhouses. In the Metropolitan infirmaries and asylums there were 3 male nurses, and 533 female nurses, and 13 dispensers. In the Provinces there were 25 district dispensers, and in the Metropolis 42.

The chief needs of the English Poor Law Service are the provision of all medicines and appliances by Boards of Guardians. The Irish dispensary system, shorn of the abuse of "scarlet runners" for the families of well-to-do people and committee men, should be

introduced. The pay should be raised considerably. Superannuation and the tenure of the appointment should not in any case be left to Boards of Guardians.

The laws relating to poor relief in Ireland have been passed during the present reign. Prior to this period the poor in Ireland had no legal right to relief, and there was no efficient system of voluntary assessment. The general system adopted in England was applied to Ireland in 1836, and an Act (10 & 11 Vict., c. 90) was passed ten years later, establishing a distinct Board of Commissioners for the administration of the laws. In 1872 an Act was passed establishing an Irish Local Government Board, consisting of the Lord Lieutenant, for the time being, as president, a vice-president, the Under Secretary to the Lord Lieutenant for the time being, and two other Commissioners. The Board is entrusted with the supervision of the laws relating to Irish Poor Relief, Public Health, and Local Government.

The system of Poor Law Medical Relief in Ireland has for its foundation the Medical Charities Act of 1851 (14 & 15 Vict., cap. 68), which established the present dispensary system. A Commission was constituted for carrying the Act into operation, and issued circulars to the Boards of Guardians in Ireland, instructing them with all convenient speed to divide their unions into districts, and to establish dispensaries in them. Some of the previously existing dispensaries, which had been supported partly by voluntary subscriptions and partly by grants from the grand juries, were retained. The last dispensary district was declared in May, 1852. The number of districts established with the sanction of the Commissioners was 723, containing 960 dispensaries. The dispensaries were placed under the management of Committees, consisting of guardians and landholders, and, in default of landholders, of ratepayers, paying in respect of property of the net annual value of £30 at least. To the Dispensary Committees was entrusted the duty of issuing and refusing tickets for medical relief. The supervision of this machinery rested with the Commissioners, who had power to issue general rules and regulations for the guidance of the Committees and the medical officers. Three years after the passing of the Act, Dr. Kesteven, in an article in the *British and Foreign Medico-Chirurgical Review*, from which this account is taken, stated the results of a comparison of the Irish and English Poor Law system of medical relief as follows:—"The

average salary of the medical officer of the Irish dispensary is £71 per annum. The average salary of the English Poor Law Union Medical Officer is £50. The average extent and population of the districts in the two countries varies, however, considerably, as may be seen in the subjoined table, prepared from the reports before us, and from the reports of the English Poor Law Board.

"COMPARATIVE ESTIMATE OF POOR LAW MEDICAL RELIEF IN IRELAND, AND ENGLAND AND WALES.

| | Ireland. | England and Wales |
|---|---|---|
| "Total population of unions and dispensary districts, | 6,552,055 | 16,137,136 |
| "Average population (in round numbers) to each medical officer - - - - | 8,000 | 5,000 |
| "Average area of districts and unions in acres - | 26,000 | 16,000 |
| "Number of unions and dispensary districts - | 960 | 607 |
| "Number of medical officers - - - | 805 | 3,156 |
| "Average salaries of do. - - - - | £71 | £50 |
| "Total expenditure per annum for medical relief - | £100,000 | £212,050 |
| "Average cost per head whole population for medical relief - - - - - - | 3*s.* 7*d.* | 3*s.* 1*d.*" |

All drugs and all medical and surgical appliances were provided at the dispensaries for the use of the medical officer, but dispensers were not appointed, and the work of dispensing had to be done by the medical officer himself.

The following table, taken from the Annual Report of the Local Government Board, gives a summary of Dispensary Districts as altered up to the 25th March, 1878:—

| Provinces | No. of Unions | No. of Dispensary Districts | No. of Electoral Divisions | Population in 1871 | Area in Statute Acres | Poor Law Valuation, 28th Sept., 1877 | No. of Medical Officers authorised by Sealed Order | No. of Apothecaries | No. of Midwives |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | £ | | | |
| Ulster . | 44 | 214 | 879 | 1,833,228 | 5,483,206 | 4,162,470 | 235 | 3 | 74 |
| Munster . | 50 | 205 | 1,025 | 1,393,485 | 6,067,722 | 3,394,870 | 228 | 20 | 32 |
| Leinster . | 40 | 203 | 945 | 1,339,451 | 4,876,934 | 4,618,181 | 230 | 13 | 106 |
| Connaught . | 29 | 98 | 595 | 846,213 | 4,392,085 | 1,364,994 | 113 | 6 | 21 |
| Total, . | 163 | 720 | 3,444 | 5,412,377 | 20,819,947 | 13,540,515 | 806 | 42 | 233 |

The following tables give further particulars as to Medical Relief and Expenses for the year ending 29th September, 1877:—

| Provinces | No. of Dispensaries or Dispensary Stations | Medicines and Medical Appliances | Salaries | | Vaccination Expenses | |
|---|---|---|---|---|---|---|
| | | | Medical Officers | Apothecaries | Fees to Medical Officers | Other Expenses |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Ulster . | 294 | 6,672 18 6 | 24,844 16 10 | 375 5 10 | 1,900 2 3 | 229 18 4 |
| Munster . | 331 | 7,099 9 3 | 24,615 18 7 | 946 2 4 | 1,657 14 6 | 191 14 4 |
| Leinster . | 323 | 7,019 14 2 | 25,976 11 10 | 1,188 2 9 | 1,282 8 6 | 257 0 8 |
| Connaught . | 144 | 3,335 0 2 | 11,892 7 3 | 234 10 2 | 968 0 3 | 180 17 11 |
| Total . | 1,092 | 24,127 2 1 | 87,329 14 6 | 2,744 1 1 | 5,808 5 6 | 859 11 3 |

Table—*continued.*

| Provinces | Rent of Dispensary Buildings | Books, Forms, Stationery, and Printing | Fuel, Attendance, Salaries, &c., and all other Expenses | Total Expenses of Dispensary Districts |
|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Ulster . . . | 2,230 18 9 | 280 9 6 | 2,833 8 7 | 39,367 18 7 |
| Munster . . . | 2,141 11 9 | 288 17 10 | 2,721 13 7 | 39,663 2 2 |
| Leinster . . . | 2,566 12 0 | 354 3 0 | 4,697 10 11 | 43,342 3 10 |
| Connaught . . | 977 19 5 | 134 0 2 | 980 2 1 | 18,702 17 5 |
| Total . . | 7,917 1 11 | 1,057 10 6 | 11,232 15 2 | 141,076 2 0 |

The following table gives further particulars as to Medical Relief afforded in the year ending 29th September, 1877:—

| Provinces | Dispensary Tickets | Visiting Tickets | Total | Vaccination Cases | Dangerous Lunatics incarcerated |
|---|---|---|---|---|---|
| Ulster . . . | 110,562 | 55,997 | 166,559 | 39,433 | 335 |
| Munster . . | 139,711 | 52,220 | 191,931 | 32,029 | 232 |
| Leinster . . | 158,194 | 59,415 | 217,609 | 26,827 | 506 |
| Connaught . . | 57,106 | 16,843 | 73,949 | 19,390 | 129 |
| Total . . | 465,573 | 184,475 | 650,048 | 117,679 | 1,202 |

The average salary of the Irish Poor Law Medical Officer is about £108. In most districts it is necessary to keep a horse, and "in some," says the writer in the student's number of the "Medical Press and Circular" for 1878, "a boat as well, the average area being from 40 to 60 square miles. The medical officer is also *ipso facto* the registrar of births, marriages, and deaths, and the medical officer of health for the district under the Public Health Act passed in 1873. The former office in country districts seldom yields more than £10 a year, and often not half that amount, and the emoluments of the latter appointment in very few cases reach £20, averaging about £12. The medical officer is also vaccinator for the locality, and is required to vaccinate everyone who wishes to come. For each patient his fee of 1s. is paid along with his salary by the guardians, and the sum total of these fees varies according to the populousness of the district, from £2 to £50, an average for the provinces being about £5. Despite the miserable salary and the very many discomforts of dispensary life, these appointments are generally eagerly sought for—firstly, because they afford the new-comer a certain, though hard-earned, salary to supplement his private earnings; and, secondly, because, if not secured by the new-comer, they would of necessity bring a competitor for practice into the field; and, inasmuch as private income is of far greater import than public earnings, country medical practitioners are obliged to undertake the public duty in order to save themselves the monopoly of their private emoluments. The qualifications required by the Poor Law Commissioners are a licence in surgery or a diploma in medicine, and a diploma in midwifery. The candidate must be 23 years of age. The appointment lies with the Dispensary Committee, who elect by vote. As politics and religious feeling run high in Ireland, these elements enter into the election of Poor Law Medical Officers. Family interest also possesses great weight." It appears that the appointment to a dispensary district is often a foregone conclusion before the advertisement announcing the vacancy appears, so that a candidate runs a double risk of incurring useless expenditure. On the one hand, he may find his religious views and those of the electors incompatible, and, on the other, he may be applying for an office virtually assigned already to another man. "The acts of the Dispensary Committee are subject to the approval of the Local Government Board, who can veto any appointment, and can even

expel an officer by a 'sealed order' without trial or accusation, or without the resource of appeal or investigation. The salary is paid by the Board of Guardians, and no increase can be made in the amount without their assent and that of the Local Government Board. Under the late Sanitary Act the Committee may recompense the medical officer for special services, such as those during an epidemic of cholera or for sanitary reports. The number of unions in Ireland is 163, to each of which is attached a medical officer, who is appointed and controlled by the Board of Guardians in the same manner as the dispensary surgeon is by his Committee. The salary is usually better than that of the dispensary doctor, and the duties are of a more easy and satisfactory description, inasmuch as the duties are confined to daily attendance at the workhouse hospital, and no night visits out of doors or any long journeys across the country are involved. The duty of the dispensary doctor is twofold. He is to attend his dispensary on a given day or days in the week. Frequently there are two dispensaries in the district separated from each other by several miles, and he will have, perhaps, to attend two days a week. He has also to visit at any hour of the day or night a sick person for whose relief a visiting ticket has been issued by a member of the committee or by the relieving officer, and to continue his attendance as often as may be necessary until the termination of the case. Moreover, he has a great many registry books to keep and a multitude of returns to make, and in the majority of districts he has to make up all the medicines for the poor. The pressure of these duties is in the greatest degree dependent on the good will of the members of his committee. If the medical man be a favourite with his masters they will give him very little trouble with the 'scarlet runners,' as the visiting tickets are, from the colour of the paper on which they are printed, humourously called, and will be unwilling to trouble him even with cases deserving of personal attendance. If, on the other hand, it is his misfortune to come in contact with some half-bred committee men who know nothing of the treatment fit for an educated gentleman, or cherish a personal spite, the discharge of his duties may become simply unbearable. He may be peremptorily summoned in any weather, at any hour, and to any distance, to a case which he may probably find to be altogether trivial, or to a person whom he may know to be perfectly well able to pay—aye, even the committee-man's own brother or daughter. By a recent

Act of Parliament a Poor Law Medical Officer may now receive a pension not exceeding two-thirds of his salary on being incapacitated from illness or old age. This grant is strictly at the discretion of the guardians; nevertheless, it has been given in most cases in which physical incapacity has been clearly proved. It is, however, at best a miserable resource, and can by no means be calculated upon as a provision for old age. There are now 53 ex-medical officers receiving superannuation allowance whose average term of service before pension was 20 years, and whose average allowance is £64 15s. Their average age at retirement was 63."

The average daily number of persons receiving in-door relief in Ireland in 1877–78 was 44,676, and the average daily number of persons receiving out-door relief was 33,547. In 1877 the population of Ireland was estimated at 5,338,906. The total average daily number of able-bodied paupers receiving in-door relief was 5,744—composed of 1,749 males and 3,995 females, and the number of healthy children was 9,859. The total average daily number of the sick in the workhouse hospitals was 16,606, including 700 cases of fever. The daily average of the other classes numbered 11,385—composed of 5,239 males and 6,146 females. The average number of deaths weekly was 207, or 4·7 per 1,000 inmates. The percentage of in-door paupers on population was 0·82. The total number of persons relieved in workhouses during the year was 198,831. The total number admitted during the year was 157,355, and of this number 49,120 were admitted in sickness. The total number of persons receiving out-door relief on the last Saturday in February, 1878, was 35,535, including 16,050 persons permanently disabled from labour by reason of old age, infirmity, or bodily or mental defect; 8,609 widows having two or more legitimate children dependent on them; and 10,876 persons disabled by reason of severe sickness or serious accident. The indifferent harvest of 1877, and the inclemency and wetness of the subsequent season, swelled the number of persons receiving relief in that year, the average daily number of workhouse inmates being in excess of the preceding year by 1,441; and the difference between the total number of persons receiving out-relief at the end of February, 1878, and at the end of February, 1877, being 3,106 in excess for 1878.

The expenditure for 1877 was as follows:—The total of the poor-rate lodged was £877,432. In-maintenance and clothing cost £405,755; out-door relief was £102,227; cost of relief in

blind and deaf and dumb asylums and extern hospitals, £10,035; salaries and rations of officers, £129,644; and all other expenses, £132,665—making a total of £780,326, or £17,171 increase over the expenditure in 1876. The numbers relieved were 199,083 in workhouses; 67,237 out-door; 711 in blind and deaf and dumb asylums; total, 267,031—an increase of total relieved of 16,936. The Parliamentary Grant for the year ended March 25th, 1877, amounted to £92,194 12s. 11d., comprising £13,347 18s. 2d. for salaries under the Public Health Act; £9,072 19s. 3d. for educational purposes; and £69,773 15s. 6d. for medical purposes; £141,076 were expended under the Medical Charities and Vaccination Acts; £4,238 paid out of Poor Rates under Burial Grounds Acts; £12,129 expended under Registration Acts; £44,870 under the Sanitary Acts; £12,104 under Cattle Disease Act; £11,030 under Superannuation Acts; £25,025 under National Teachers Act—making a total expenditure of £1,030,798. The poundage of the expenditure on valuation was, for poor relief, 1s. 1¾d., and the total was 1s. 6¼d. The net annual value of the property rated was £13,540,515. In spite of the increase in poor relief expenditure, there was a decrease in the total expenditure of £14,707 compared with that in 1876.

The Irish National Cow-pock Institution came under the control of the Local Government Board on the 1st April, 1877. Since then 16,656 points and 756 tubes charged with lymph were distributed up to 30th September, 1877, and in the same period 1,943 vaccinations were performed by the collectors of vaccine for the institution almost wholly within the precincts of the city of Dublin. The remainder of the lymph supply came from dispensary medical officers in country districts.

In Scotland, prior to 1845, the relief of the poor was provided for by voluntary assessment. The Poor Law Amendment Act of Scotland (8 & 9 Vict., c. 83), introduced in 1845, established a Board of Supervision, consisting of ten members, with power to make rules and regulations. The Act gave to the destitute poor the right of relief in the parish to which they belong. It also instituted *burghal parishes*, or combinations of parishes, with *boards of managers of the poor*, having the power to raise funds by compulsory assessment. The principle of the Poor Laws in England and Scotland is not identical. In England a large number of the working classes become during sickness the objects of parochial relief,

but in Scotland only the permanently infirm and disabled receive parochial relief. The Board of Supervision established by the Act was friendly to the claims of medical men in attendance on the sick poor. Prior to 1845 there had been no provision for the payment of medical men attending paupers. The Act made it imperative on the parochial boards to provide medical relief for the paupers, but the sum paid at first by inspectors was wholly inadequate. The Board of Supervision fixed a minimum sum for each parish to expend on medical relief as a condition of participating in the Government grant of Sir R. Peel, and in spite of the opposition and manœuvres of the ratepayers, who raised an outcry against the measure, adhered to their decision. At the present time (1878) the number of parishes is 887, of which 820 are assessed, and 67 still raise funds by voluntary contributions. The number of parishes having poorhouses, either singly or in combination, is 426, having an aggregate population of 2,697,715. There are 62 poorhouses in operation, the accommodation of which is sufficient for 14,352 inmates. More poorhouses are in course of erection, or have been resolved on. 227 parishes possess the right under the 65th section of the statute to send paupers to the poorhouses of other parishes, raising the total of the population for which poorhouse accommodation is available to 3,219,977. For 234 parishes, with a population of 140,041, poorhouse accommodation is not available.

The total expenditure for the relief and management of the poor during the year ending May 14, 1878, was £918,789 18s. 2d.—an increase of £59,882 17s. 11d. on the previous year. Out of the total mentioned, £3,883 19s. 10½d. were expended on the education of non-pauper children; buildings cost £94,538 4s. 1d.; law expenses, £7,712 1s. 8d.; management, £118,725 16s. 10d.; medical relief, £38, 888 7s. 2d.; relief of casual poor, £17,892 5s. 1d.; and relief of poor on roll or registered, £641,033 3s. 4d. The expenditure on lunatics alone was £189,899 11s. 9½d.—an increase of £16,587 16s. 2¾d. over the preceding year. In ten years the expenditure under this head has increased by £81,726 17s. 8d.

The estimated population of Scotland in May, 1878, was 3,568,422. The number of paupers of all classes, including dependents in receipt of relief on the 14th May, was 99,398, or 2·7 per cent. of the population. The total expenditure on relief and management was £824,251, giving an average annual cost for each

person receiving parochial relief, registered or casual, of £8 5s. 10d., and an average cost for maintenance for each registered pauper at the 14th of May of £10 9s. 7½d. On the 14th May, 1878, of the registered poor the adults relieved were 61,156—17,775 being males, and 43,381 females; 33,515 dependents were relieved—15,278 being males, and 18,237 females. Of the casual poor 2,602 adults were relieved on the same day, 1,067 being males and 1,535 females; 2,125 dependents were relieved—964 being males, and 1,161 being females. The number of lunatic poor relieved was 9,357, of whom 1,754 died, or were cured, or ceased to receive relief, leaving 7,603 on the 14th of May; of the 7,603, 5,355 were in asylums, 852 in licensed wards in poorhouses, and 1,396 were residing with relatives, or other parties, in private dwellings. The number of orphan and deserted children chargeable during the year was 7,636, but the number on the 14th of May was only 5,985, of whom 4,019 were orphans, and 1,966 deserted.

£10,000 are granted annually by Parliament in aid of medical relief. The total receipts were £870,198 11s. 5d., comprising £748,576 19s. from assessments, £7,205 2s. 11d. from voluntary contributions and church collections, and £114,416 9s. 6d. from grants for medical relief, lunatics, mortifications, and other sources.

The system of medical relief in Scotland presents the following features:—

1. The large size and difficult character of the districts. This feature is exemplified chiefly in the North of Scotland, in Sutherlandshire, Inverness, Ross-shire, &c. An acting medical officer writes in *The British Medical Journal* of March 25, 1876:—"Wide unmanageable districts are peculiar to the north and north-west. In Ross-shire, for instance, I may notice two: one forty miles long by twenty broad, with a population of 5,148; another about the same extent, with a population above 4,000. Both are intersected by arms of the sea, and traversed by almost impassable mountain ridges, lakes, and rivers. The roads to some of the townships are passable, many are crossed by streams as yet unbridged, and in some cases there is scarcely a footpath. The medical man, on more than one occasion, is known to have got his horse to swim over a swollen river, while he and the saddle were ferried. The climate, again, is unfriendly. Frequent rains on long journeys, which cannot be delayed, tell even on the strongest frame." Another writer observes:—"In Ross-shire lies the Parish of Loch Broom,

perhaps the largest in Scotland. This parish is cut up by hills, and intersected by lochs, so that to traverse his district the medical man would require a horse or two, and a boat, or better still, as a gentleman who once held the appointment of Poor Law Medical Officer told the present writer, a balloon. There are fifty pauper heads of families in Ullapool—its chief village—alone, and throughout the hilly country are scattered even more than the usual proportion of poor on the roll, yet the munificent sum paid for medical relief amounts to £90 per annum, a sum lessened further by the price of the medicines, which are found by the medical man. There are three clergymen." Speaking of Sutherlandshire, the same writer observes:—"We may form some adequate idea of the immense area of these districts when we consider that the entire county of Sutherland is comprehended in five such districts" (another correspondent states that there are six districts and six medical officers instead of five); "and of the work of the doctor, when we know that his residence is, for the most part, in some out-of-the-way corner of his parish or parishes—for, to cheapen matters for the boards, two parishes have in some cases been thrown into one district, although each one separately is more than any one could possibly work; that the country is hilly in the extreme; that the roads (good, such as they are) wind among the hills, and are often carried over heights or down steep inclines; and lastly, that the climate is very boisterous, and snow lies deeply on the hills. Where away from the roads—for roads are few in Sutherland—the tracks are rough and dangerous, if indeed any track exist. Nor is it to be overlooked that, while for medical purposes five medical districts comprehend the whole county, we find four or even six men for ecclesiastical purposes in the districts embraced by one medical man, and this not in one district only but in all. Everyone knows that the work of a medical man is much more laborious in itself than that of a clergyman. The latter can choose his own times for most of his labours, and they are at least regular. Now, if these have even a fair share of work it is apparent that the medical man has far too much to do, while, for doing his larger share of the work he receives a very much smaller salary. We notice the southern districts first. Assynt is thirty-five miles long and twelve or thirteen miles broad, with one main road from the east, and a branch road conducting to nowhere, for it ends abruptly in the midst of hill and bog. The population is about 4,000, scattered in small townships

or in cottages on the hills. The medical man resides at Loch Inver, a hamlet prettily situated on an arm of the sea, of the same name, and quite in the corner of his parish. From this he may be called at any time by any of ninety-six paupers who form the regular poor roll, and be required to ride any distance within his area in any weather. Storms of wind and rain during summer, of sleet and snow in winter, accompanied by a hurricane of wind, belch down from the hills and sweep through the glens with great fury. Nothing can resist them. Man and horse are soon hopelessly wet, chilled by the winds, and exhausted by the fatigue of battling with the elements; and after a weary ride—often at night along dangerous roads—he may have to begin the conduct of a case requiring in itself all his energies. Even after seeing his patient the needful rest cannot be had, and he may have to ride some miles still before he can procure accommodation for the remainder of the night—a thing always eagerly and heartily offered by all who have the means. Now, suppose several patients require constant care about the same time—they are separated by thirty miles—how is it possible that the medical man can do his work with satisfaction to himself? A frame of iron could not stand it. His horse refuses to carry him, and in these days the Society for the Prevention of Cruelty to Animals may step in to protect the horse, while, as to the man, the Boards may work him to death not only with impunity, but may contrive to gain some little credit to themselves from the fact of having selected such an energetic man to perform the medical duties of the parish—so easy it is to be generous at another man's expense. And what is the remuneration for all this? For attending these ninety-six paupers, their dependents, and casuals, who in all make up about four times the number on the poor-roll, he has the paltry sum of £100 per annum, out of which he has to find medicines, instruments, and such apparatus as may be required. In this parish there are four clergymen, the worst paid of whom receives more for doing less."—Observations on Poor Law Medical Relief in the North of Scotland, *Brit. Med. Journal*, Jan. 15, 1876. More might be quoted to the same effect, but we pass to—

2. The small and inadequate salaries paid to the medical officers. The highest nominal salary does not appear much to exceed £100, and in many parts of Scotland it is much less. In Sutherlandshire an ex-medical officer states that the medical officers are particularly

fortunate, their salaries from the Parochial Boards being supplemented by a grant of £40 a year from the Duke of Sutherland, with a free house, garden, coach-house, stable, &c., and a few acres of land at a purely nominal rent, and there are several large sheep-farmers in each district who pay well for attendance on themselves and families. The Boards pay 2s. 6d. for each vaccination, and 10s. 6d. for each midwifery case. Quarterly visits to lunatics are remunerated at the rate of 2s. 6d. a head, and the fee for granting a certificate of lunacy to a pauper is £1 1s., payable by the Parochial Board. According to the ex-medical officer, £500 or £600 a-year may be made in Sutherlandshire, but this experience is probably exceptional. In many parts of Scotland the amount to be made by private practice is extremely small, and house rent and taxes have to be paid out of the pittance received from the Parochial Board, which in reality represents not the pay of the doctor, but the gross amount expended by the parish on medical relief. All drugs, instruments, and appliances have to be found, and a horse or two must be kept. The work is fatiguing and harassing in the extreme, and the Poor Law Medical Officer is glad to escape from the hardships inseparable from the life of a doctor in the north of Scotland, and settle down in some large town. "Many medical men in the Highlands take farms," says D. B.; "some do so in order to make a livelihood. A very respectable unmarried medical gentleman told me he would never have saved a penny were it not for his farm, and that the first year or two he was in his parish without a farm he was more out of pocket than his yearly income. Another gentleman in Argyleshire told me that on settling his drug bill at the end of the year he scarcely had £100 left out of his income from all sources."—*B. M. J.*, March 25, 1876. In 1875 Dr. Rogers gave some examples of the wretched salaries of the Poor Law Officers. At Cardross, with a population of 7,080, only £46 8s. 2d. was paid, all medicines having to come out of the pocket of the medical man. At New Deer, with a population of 4,853, of which number 152 were registered poor and their dependents, and 50 were casual poor and their dependents, total 202 with 7 lunatics, medical relief cost the parish only £30, whilst the gross relief was £803 9s. 2d.; and at Old Deer only £9 10s. 1d. more was paid for medical relief, although the population was 5,085; the registered poor and dependents, 257; the casual poor and dependents, 94; and the lunatics, 24; total, 365; and the gross relief £1,624 10s. 7d. "What chance," Dr. Rogers

asked, "does there exist that the sick poor in Scotland get proper medicines when they have to be supplied from such stipends? The system of medical relief in Scotland has a deteriorating moral effect on all connected with it."—*B. M. J.*, 25th March, 1875. Some of the salaries are based on averages which were struck some years ago when money was more valuable than it is at present, and less work was demanded of the doctor. The local Boards have imposed fresh duties, and extra pay can only be obtained by an appeal to the Board of Supervision, at the risk of involving the applicant in permanent discomfort in fulfilling the duties of his office from the action of offended officials.

3. The absence of any guarantee of permanence in office. The appointments are made by the Parochial Boards, and the work paid for by the Boards. Sometimes the engagement is for one year—sometimes no term is specified, three months' notice on either side being sufficient to terminate the engagement. It is true that in many cases there is not much fear of the occupant being disturbed in his post, for the simple reason that change involves the expense and trouble of advertising and election, and Boards have found it by no means easy to fill up the appointments, but it is also true that in other cases medical officers are placed at the mercy of the Board, the majority of whom may be petty farmers or fishermen, and have relatives—poor cousins and others—on the pauper roll. The ears of these members of the Board are ever open to the tale of trumped-up grievances, to charges of neglect or cruelty, which may possibly amount to no more than the refusal to an habitual toper of an order for whiskey. Experience has shown how easy it is to tread on the toes of some influential committee-man—the laird of the parish, for instance—who carries the votes of the majority of the Board. To ensure personal comfort attention must be given, not so much to the wants of the sick poor, as to the requirements of members of the Board in matters possibly not concerning paupers. As no efforts are made to render the office agreeable, the medical man soon becomes disgusted with the appointment, and throws it up, leaving to his successor the legacy of a like experience.

4. The comparatively small sum paid for medical relief in Scotland. The total amount of money expended on gross relief in Scotland for the year ending 1878 was £918,789 18s. 2d., whilst medical relief cost £38,888 7s. 2d. The proportion of medical relief to the gross relief is about 1 to 24. In England gross relief

for 1876–77 cost £7,400,034, and medical relief, £294,689, or a proportion of medical to gross relief of 1 to 25, or nearly 26. In Ireland the total of poor relief reached £780,326 for 1877, and medical relief cost £141,076, a proportion of 1 to 5. This comparison clearly shows that Ireland is greatly in advance of both England and Scotland in the provision of medical relief. Roughly, Scotland may be said to spend 5s. 9d. a head on poor relief and 2½d. on medical relief; England, 6s. 8d. a head on poor relief and 3d. on medical relief; Ireland, 3s. 4d. a head on poor relief and 6d. on medical relief. The inference would be that the more that is spent on medical relief the less will require to be spent on poor relief, and the conclusion would certainly be in favour of introducing the dispensary system both into England and Scotland.

In Scotland the Parliamentary grant only amounts to £10,000, or very little more than a fourth of the amount expended on medical relief; whilst in England and Ireland one-half of the gross outlay is paid from Imperial sources.

The Select Committee of the House of Commons, appointed in 1869, for the purpose of inquiring into the working of the Scotch poor laws, reported, in 1871, that every Parochial Board should be required to appoint a medical officer at an annual salary exclusive of the cost of medicines; that medical officers should be removable from office by the Board of Supervision only; that the Parochial Board should be required to superannuate each officer; and that the Parliamentary grant in aid should be placed on the same footing as in England and Wales. Mr. Crawford brought in a bill to carry out the views of the Select Committee, but it was lost on the second reading. In 1876 Mr. Gordon, the Lord Advocate, brought in a bill, providing for—1. Life tenure for poor law medical officers, who were to be removable only on misconduct by the joint action of the local authority and the Board of Supervision. 2. Payment of one moiety of the salary out of the Consolidated Fund, thus preventing capricious reductions by the Parochial Boards, and securing an adequate salary. 3. The supply of all drugs apart from the salary. The bill was withdrawn, owing to opposition and lack of time. Reform, however, cannot long be delayed. To the propositions above made should be added, in any new bill, the introduction of the dispensary system, and the addition of a medical member to the Board of Supervision.

Intimately connected with the machinery of Poor Law Medical Relief is the machinery of the

SANITARY MEDICAL SERVICE.

For the proper comprehension of existing arrangements a brief review of past legislation is required. The "Public Health Act" of 1848 (11 & 12 Vict., c. 63) established a General Board of Health, consisting of the First Commissioner of the Board of Works for the time being, and of two other persons appointed by Her Majesty. Large powers were vested in the Board. One of the most important of these powers was that, on the petition of a certain proportion of the rated inhabitants of any town, parish, &c., it could direct an inspector to visit and report on the place. If the inspector thought it desirable that the Act should be applied to the place, the Board could either procure an Order in Council or issue a provisional order for the purpose to be subsequently ratified by Parliament. The "Diseases Prevention Act, 1855" (18 & 19 Vict., c. 116, amended by 21 & 22 Vict., c. 97, and 23 & 24 Vict., c. 77, ss. 10–15) enabled the Privy Council to set on foot in any place inquiries concerning the public health; and, when any part of England is either threatened or affected with epidemic, endemic, and contagious disease, to put the Act in force there, and issue regulations for speedy interments, house to house visitation, dispensing of medicines, guarding against the spread of disease, and affording such medical aid and accommodation as might be required. The execution of all such orders was reposed in the local authority for executing the Act—viz., the guardians and overseers of the parish. The "Nuisances Removal Act for England, 1855" (18 & 19 Vict., c. 121), which repealed some previous Acts, and has been amended by some subsequent Acts (23 & 24 Vict., c. 77, ss. 1–9; 26 & 27 Vict., c. 117; 29 & 30 Vict., c. 41; and 29 & 30 Vict., c. 90, second part, called "The Sanitary Act, 1866") ordained that the "local authority"—that is the local board of health, if any, and, if not, one of the following bodies in turn, in case of the non-existence of the body next before it in the series—the Town Council, the Trustees or Commissioners under Local Improvement Acts, and, lastly, the Guardians or Overseers (but in certain cases the "Highway Board" or the "Nuisance Removal Committee," if in existence and acting when the Act passed, might be the "local authority")—the "local authority" was to appoint, or to join with other local authorities in appointing, for

each place a "sanitary inspector" or "inspectors." Under the direction of the local authority the inspectors may examine any premises about which complaints have been made or where nuisances are suspected to exist—may inspect all articles of food, whether exposed for sale, or being prepared for sale, or being conveyed from place to place. Offenders may be summoned before two justices of the peace in petty sessions, and the justices have authority to issue orders for the abatement or discontinuance of proved nuisances, and for the destruction of all articles of food found to be unfit for human consumption.

The Board of Health was continued by several successive Acts till September, 1858, when it ceased to exist, being superseded in its functions—partly by the Secretary of State for the Home Department, and partly by the Privy Council, already charged with the execution of the "Diseases Prevention Act, 1855."

"The Local Government Act," 1858 (21 & 22 Vict., c. 98), amending the Public Health Act of 1848, committed the sanitary arrangements and internal management of a place in which the Act had been adopted to the "local authorities" instead of to the Central Board in London. This Act was amended by "The Local Government Act (1858) Amendment Act, 1861" (24 & 25 Vict., c. 61), and by the 26 and 27 Vict., c. 17, called "The Local Government Act Amendment Act (1863)." By these three Acts the "local authority"—which, in corporate boroughs, is the Town Council, and in other places is to be elected by the owners and ratepayers—is charged with a great variety of sanitary duties and powers, such as scavenging and cleansing streets, building, repair and control of streets and roads, supply of water, &c. The local authority may borrow money, purchase land, settle boundaries, and procure the repeal of local Acts through the agency of the Secretary of State. The expenses incurred in the discharge of the duties imposed by the Acts are thrown upon the local rates, levied on the occupiers of property liable to the poor-rate. In substance it has been already stated that in 1871 an Act (34 & 35 Vict., c. 70) was passed by which the powers and duties of the Poor Law Board, the Secretary of State for the Home Department, and the Privy Council, in reference to poor relief, Local Government Acts, Diseases Prevention Acts, and other Statutes, were transferred to the "Local Government Board," established by the Act.

The Public Health Act, 1872 (35 & 36 Vict., c. 79), introduced by Mr. Stansfeld, divided the country into "Urban Sanitary

Districts" and "Rural Sanitary Districts." Urban sanitary districts included all boroughs, Improvement Act districts, and Local Government districts; rural sanitary districts consisted of such Poor Law Unions as are not coincident in area with or wholly included in an urban district. The urban sanitary authorities were left as they were, and consisted of a Town Council, a Local Board of Health, or a body of Improvement Commissioners. The Rural Sanitary Authorities were made the Boards of Guardians.

The Local Government Board was to appoint Inspectors—not necessarily medical—with the power to supervise and to control, to a large extent, the action of the local authorities.

To urban sanitary authorities all the powers, rights, and duties of a local board, under the Local Government Acts, of the nuisance authority, under the Nuisance Removal Acts, and of the authorities under the Sewage Utilization, Diseases Prevention, Common Lodging, Artisans and Labourers' Dwellings, Bakehouse, Baths and Wash-houses, and Labouring Classes Acts, were entrusted. To rural sanitary authorities was entrusted the jurisdiction in reference to the Nuisance Removal, Diseases Prevention, Sewage Utilization, Common Lodging, and Bakehouse Acts. Subject to this transference of authority all the Local Government Acts were to remain in force. Every urban and every rural sanitary authority were required to appoint a legally qualified medical officer of health in the first instance for five years, and their salaries might be partially paid out of the Consolidated Fund. The medical officers were left under the control of the local authority, unless the local authority invoked the aid of the Local Government Board and assistance from imperial funds. In 1874 a Sanitary Acts Amendment Act, (37 & 38 Vict., c. 88) was passed to remedy technical defects in the Act of 1872, and to extend the powers of sanitary authorities in regard to nuisances and matters injurious to the public health. An Act (37 & 38 Vict., c. 88) was also passed to ensure the proper registration of births and deaths. Registration of the births of children born alive and of deaths was made compulsory.

In 1875 Mr. Sclater-Booth introduced the Public Health Bill, 1875. Its chief object was to consolidate the Acts relating to Public Health in England since 1848, but it also introduced amendments. Mr. Booth remarked "that the Public Health Act of 1848 was passed under pressure of considerable alarm, arising from the approach of cholera. Both previously and subsequently

to that date innumerable Local Acts had been passed, but since that time public attention had been more and more directed to this subject, and efforts had been made yearly to improve and facilitate local administration in the country. Many of them had been of a permissive character, and others had contained clauses partly permissive and partly compulsory, but based upon different models, and they had approached the subject from different points of view, and contained provisions which touched, and in some cases conflicted with each other. The object of the Bill would be to amend and reconcile many of them. Since the Provisional Orders Bill had been in operation, a number of Bills had been passed which contained provisions of law most objectionable to the whole of the community, and the Sanitary Commissioners stated that the number of Statutes which had been passed, and the way in which they had been framed, had rendered the state of the Sanitary Law unusually complex, arising from the progressive and experimental character of modern legislation, without any attempt at reconstruction or classification. The law was frequently unknown, and when studied was difficult to be understood. It was found impossible, in passing the Act of 1872, to comprise within it any consolidation of the law, but after two years' experience of its working an amended Act was passed last year of a more uniform character—in fact, it would have been impossible to work the Act of 1872 if a digest had not been prepared by the officials of the department. The time had now arrived for making a clean sweep of these Acts; and twenty-nine Acts, passed since 1846, would be more or less dealt with in future years. It was proposed to consolidate in this Bill the Public Health Acts of 1848, 1859, and 1872; the Sanitary Acts of 1866, 1868, and 1870; the Nuisance Removal Acts; the Local Government Acts, from 1858; the Sewage Utilization Acts; the Towns Improvement Act, and many others." The Act contains the following provisions, which bear upon the aspect of the subject with which we are concerned. Local Boards and Improvement Commissioners are incorporated, but Sanitary Authorities are no longer to be a Corporation. The date of election is fixed for April 15th of each year. Urban Authorities are to be the authorities for executing the Bakehouse Regulation Act, the Artisans and Labourers' Dwellings Act, the Baths and Wash-houses Act, and the Labouring Classes' Lodging-houses Acts. Rural authorities have only to execute the Bakehouse Regulation Act. The manage-

ment of all existing and future sewers is vested in the Local Authority—Urban and Sanitary. In Part VIII., which deals with alteration of areas and union of districts, power is given to the Local Government Board, by order, to provide for the settlement of any differences between districts, and to unite districts for the purpose of appointing one Medical Officer of Health for the united district, and it allows them to regulate his appointment and dismissal, and also to arrange the remuneration to be paid to such officer. The power is limited in boroughs having a separate Court of Quarter Sessions, and where any authority objects to be included in the united district the order is to be of no force until confirmed by Parliament. The Local Government Board may assign to the medical officers of unions in any constituent district duties which they are to perform in rendering local assistance to the Medical Officers of Health. For these services the district medical officers are to be paid such additional remuneration as the Local Authority may, with the approval of the Local Government Board, determine.

The Act was amended by the Act 41 & 42 Vict., c. 25, passed in 1878, which makes it the duty of every rural sanitary authority to provide or to require provision of a sufficient water-supply for every occupied dwelling-house, and lays down a course of procedure for enforcing such requirement. The powers of the Act are to be set on foot on a report from a Medical Officer of Health or Inspector of Nuisances. Authority is given to the Local Government Board to invest any Urban Authority with the powers and duties of the Act.

The Public Health Act of 1874, relating to Ireland (37 & 38 Vict., c. 93), followed the lines of the English Act of 1872. In 1878 an Act (40 & 41 Vict., c. 52) was passed to consolidate the Acts Relating to Public Health in Ireland, and continuing the establishment of Urban and Rural Sanitary Districts and Authorities as in England.

Vaccination is regulated by the Acts 30 & 31 Vict., c. 84 (1867), 34 & 35 Vict., c. 70 (1871), 34 & 35 Vict., c. 98 (1871), and 37 & 38 Vict., c. 75 (1874). Boards of Guardians of unions and parishes appoint medical men as public vaccinators who possess the requisite qualifications. The Local Government Board demands a duly registered double qualification and a certificate of instruction in vaccination from a public vaccinator authorised by the Privy Council to grant certificates. Educational vaccinating stations for

teaching and examination are in operation in eleven of the largest towns in England and Scotland under conditions imposed by the Privy Council. In London there are 9 stations and 8 vaccinators; in Birmingham, 4 stations and 1 vaccinator; in Bristol, Exeter, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, and Sheffield, 1 station and 1 vaccinator; and in Glasgow and Edinburgh, 2 stations and 2 vaccinators. All necessary forms are supplied by the Local Government Board. Guardians may enter into contracts with vaccinators in regard to the rate of payment, but a minimum scale has been fixed by the Local Government Board. The contracts may only provide for successful vaccinations. Awards are made under certain conditions by the Local Government Board for successful vaccinations.

The 20th section of the Vaccination Act of 1867 authorised Boards of Guardians to pay officers appointed by themselves to prosecute persons for offences against the Vaccination Act. The clause being only permissive, many Boards did not act upon the powers thus conferred. By section 5 of the Vaccination Act of 1871 the appointment of such officers, called Vaccination Officers, was rendered obligatory on every Board of Guardians after January 1st, 1872. Instructions were issued by the Local Government Board in December, 1871, prescribing duties in detail. The Act of 1874 empowered the Board to issue rules, orders, and regulations to the Guardians in reference to the subject, and the Board sent out a circular in October, 1874. Guardians are required to appoint one or more vaccination officers to districts coinciding either with vaccination districts or with the districts of registrars of births and deaths. The vaccination officers are the registrars of vaccination certificates and prosecutors under direction of the Guardians, and visitors of houses in cases of outbreaks of smallpox, and are charged with the duty of seeing that all children in their district are duly vaccinated.

By the Sale of Food, Drugs, &c., Act (38 & 39 Vict., c. 63), 1875, public analysts are to be appointed by local authorities. In the City of London the Commissioners of Sewers, in the rest of the Metropolis the Vestries and District Boards, in the rest of England the Court of Quarter Sessions of every county and the Town Council of every borough having a separate Court of Quarter Sessions or a separate police establishment are the authorities for the purpose, subject to the approval of the Local Government

Board. Any purchaser of an article of food or drug is entitled to the services of the public analyst on payment of 10s. 6d., and the analyst must give him a certificate of the result of the analysis. Medical officers of health, inspectors of nuisances, inspectors of weights and measures, inspectors of markets, and police constables, acting by order of the local authority, may bring articles of food and drugs for analysis, and the analyst must make an analysis with all convenient speed, and certify the result. Quarterly returns of the number of analyses, the results, and the sums paid, must be made to the local authority.

Under "The Registration of Births and Deaths Act," medical men *present* at births or deaths are charged with the duty of giving notice to the registrar in default of the nearest relatives. Practitioners attending persons in their last illness are required, under a penalty of 40s. for refusal or failure, to give certificates of the cause of death. Forms of certificate are supplied gratis by the registrar to every registered practitioner asking for them. In Scotland a practitioner must send in a certificate of the cause of death within seven days, under a penalty of 40s. for failure. It has not been deemed necessary to do more than impose the duty on Irishmen.

In the Metropolis the appointment of a legally qualified medical officer of health is compulsory on Vestries and District Boards. In the City of London the authority is the Commissioners of Sewers. The duties of medical officers of health, who are removable at pleasure, are—to inspect their districts, ascertain the existence of diseases, especially preventable and mortal diseases; to investigate the causes and modes of propagation, and check the progress of epidemic and infectious maladies; to expose nuisances: to issue reports on the sanitary state of their districts, making suggestions for limiting the spread of contagion, for the ventilation of public buildings, and the general improvement of the health of the districts.

We must now review the causes and effects of modern sanitary legislation. In a very able address delivered at the Medical Society of London in 1874, on "the Waste of Life from Preventable Disease," Mr. Brudenell Carter observes that the foundation of almost everything that has been done for the diminution of disease in our own day was the Registration Act of 1836. "The revelations made by the national death registry speedily had the

effect of calling attention to the ravages of preventable disease; but it happened, most unfortunately, that the question somehow became the property of a comparatively small coterie of persons—possessing, indeed, much sincerity and earnestness, but not gifted with minds that could in any high sense be called philosophical—singularly prone to the sins of premature generalisation and of presumptuous judgment, and altogether abandoned to the belief that they were the sole depositaries of knowledge on the subjects that they had contrived to make their own. Such, I think, is not an unfair description of the curious organisation that was denominated the General Board of Health, and that bore sway in England from 1848 to 1858. Its brief reign was characterised, if not by the origin, at least by the first currency, of a strange delusion which has ever since prevailed extensively, and which has been the fruitful parent of an infinity of mischief. This is the erroneous belief that the requirements of preventive medicine are of such a nature that they may be easily understanded of the people, and easily put in force by any unskilled person. The General Board of Health may be said to have staked its existence on the dogma that dirt is the cause of disease; and whenever disease was rampant, the Board, instead of sending an expert to trace it to its origin, sent an inspector, an engineer, a lawyer, an amateur, or what-not, to look for dirt. If he found a muck-heap within a mile of an epidemic, the inspector would feel that he had not only done all that could be required of him, but that he had even exercised extraordinary acuteness of observation, and that he had furnished an exhaustive explanation of the occurrences. If, when the muck-heap was removed, the epidemic did not cease, it clearly ought to have done so, and the case was so much the worse for the facts. The General Board of Health arrived at the further conclusion that an accumulation of excreta constituted the most noxious form of dirt, and that the best method of disposing of excreta was by means of water-closets. Their inspectors, therefore, whenever they were asked to advise for the improvement of the health of a locality, advised the immediate adoption of a water-closet system. It did not matter whether the prevailing maladies were actually due to faulty methods of dealing with excreta or to other and wholly different causes, and it mattered still less whether the necessary water-supply could be procured, or what might be the ultimate destination of the sewage, the panacea was in all cases the same, and its perpetually-

recurring failures were attributable only to its imperfect application. Some of us, doubtless, have heard Dr. William Budd describe his inquiries into the origin of the Cowbridge fever. This fever attacked a number of ladies and gentlemen who, in November, 1853—it being race week at Cowbridge—had attended two balls held at the principal inn there. No less than eight of the sufferers died, and as they were all people of some wealth and station, the occurrence attracted much attention, and the General Board of Health sent down an inspector. The ball-room had been made by the temporary conversion of a loft over a large stable, and to this stable the inspector ascribed the fever. Dr. Budd proceeded to the place, as if he were a chance traveller, and discussed the outbreak over a glass of wine with the landlady. He soon ascertained from her that, although the disease had originated in the stable, no horses had died and no helpers had been attacked. By skilful cross-examination he discovered that a gentleman had been ill with typhoid in the hotel before the balls, and had left, when barely convalescent, in order to escape from them. His excreta had been conveyed into a cesspool that leaked directly into a certain well, and the water from this well had been used in making beverages for the dancers. The members of the Board of Health, however, notwithstanding such evidence as this, had an almost personal hatred of facts that supported a belief in contagion or in anything but dirt, and they used their whole influence and whole printing power during a period of ten years for the purpose of discrediting anything that told against the belief they had espoused. They greatly injured and retarded the cause of sanitary reform by furnishing a signal example of how little those who professed to be authorities might really be worthy of trust, and by supplying a tangible ground for the scepticism of common-sense people. But they, nevertheless, did good service, partly by accustoming the public mind to the idea that some legislation about health was really called for, and partly by directing attention to the enormous prevalence of preventable disease."—*Lancet*, May 16, 1874.

The Board of Health ceased to exist in 1858, and a large number of local authorities, or Local Boards of Health—established either by order of the Board or by voluntary adoption of the Acts by the inhabitants of the various districts—remained in charge of the machinery for the improvement of the public health. But, according to Mr. Michael, many of the local authorities had been created

for the purpose of doing nothing and avoiding liabilities incident to their districts under other statutes. "This led to a restriction on the adoption of the Local Government Act by any district having less than 3,000 inhabitants, and subsequently caused the passing of the 49th section of the Sanitary Act of 1866, lodging in the Secretary of State for the Home Department, who was then head of the Local Government Act Office, power to compel works of drainage and water-supply to be executed under his order, in default of their construction by the sanitary authority in any district, where, after due inquiry, it was shown that these Acts were deficient. But this power, extended, patched up, and improved by successive Acts of Parliament in 1867, 1868, 1869, and 1870, was found to be practically inoperative, owing to inherent difficulties in putting it into force—these difficulties being specially administrative and financial. In the meantime, while urban populations were more or less brought under the operation of sanitary law, either by 'Local Improvement Acts,' or the establishment of Local Boards of Health, the rural parts of the country were dependent on the provisions of the Nuisances Removal Acts and Diseases Prevention Acts, passed in 1855, worked either by Highway Boards as the local authority, when such board appointed an inspector of nuisances, or by a committee of inhabitants, or subsequently by Boards of Guardians as the nuisance authority under the altered (it can hardly be said amended) Act of 1860. The provisions of these Acts were so notoriously inefficient, even when aided by the common-law powers of removing nuisances vested in the Courts Leet of Manors, that in 1865 the first of a series of Acts, called either Sewage Utilisation or Sanitary Acts, was passed for the purpose of creating new sewer authorities in every part of the kingdom where the Local Government Acts were not in force. Up to this time sanitary legislation was to a large extent permissive, and it was only by the Sanitary Act of 1866 that any attempt at compulsion, except as to abatement of nuisances, was enacted by general statute. The powers of these newly-constituted authorities, as to sewage and water-supply, were placed in the hands of the vestry of each parish, whilst the Board of Guardians continued to be the nuisance authority to execute the Diseases Prevention Acts. The parish became the unit of area, except when a most disastrous power afforded by these Acts was exercised—that of carving out of the parish what was called a special drainage district.

By this legislation three bodies were constituted to do the work which had before been discharged by one. Thus the care of highways was left to the Highway Board, the duty of attending to sewers, &c., was given to the vestry, and the supervision of nuisances was transferred to the Board of Guardians. It will not be too much to say that these Acts were a failure. The amount of money expended by local boards and by sewer authorities, if a reliable return could be obtained, would show how immensely short of the requirements of the public service has been the expenditure of money, and the result is seen in the high death-rate still prevailing in many parts of the country. Nor is this parsimony to be wondered at. Joined to a very imperfect knowledge—in many cases joined to a profound disbelief of the value of sanitary work, and a not unnatural impatience of taxation—was the fact that the persons who were to administer the Acts would have to pay the cost, and these were the persons who were the most adverse to expenditure of money for such purposes."

The failure of sanitary legislation, and the complicated difficulties by which the subject was surrounded, led the Government of Lord Derby in 1867, at the instance of the Social Science and British Medical Associations, to appoint a Royal Sanitary Commission to inquire into the operation and administration of the sanitary laws. The Report of the Commission served as the basis for the Public Health Act of 1872. "When the Public Health Bill," says Mr. Michael, "came before Parliament, there existed Local Boards and Local Boards of Health in districts constituted under the Acts of 1848 and 1858, Sewer Authorities and Nuisance Authorities under the Sanitary Acts, and Improvement Commissioners under Local Acts; and owing to the anomalous provisions of the so-called Sanitary Acts there were some places where Local Improvement Acts were in force in boroughs, Local Commissioners to provide sewers and drains, and a Municipal Corporation constituted a sewer authority to do the same work; local boards with full power over roads, lighting, water-supply, and drainage; and sewer authorities having no power over roads, or over the drains which had been constructed in them by highway authorities acting under the Nuisances Acts; towns which had become surrounded by great outlying populations, chiefly formed for the express purpose of avoiding sanitary restrictions, and who had expressly located themselves outside sanitary control, and beyond the reach of sanitary

taxation; districts which, sometimes to the number of four, met in the centre of the most densely-populated portion of a town, subject to different authorities with different powers, carrying out different Acts, and with widely diverse views as to the obligation of sanitary law; streets in which one side, and even in some cases where parts of houses, were within the district of a local board, and the other without the district, and also without supervision or control; whole parishes so surrounded with other districts or parishes, and so situated as to make drainage impossible, except through the subjacent parish or district; and others where efficient drainage was alone possible by judicious combination and united action; rivers and streams passing through carefully-kept districts, carrying on with them in their course the poisonous filth accumulated in other towns or villages through which the stream had previously passed, where it was used as the common carrier to get rid of troublesome and dangerous accumulations."—*British Medical Journal*, April 4, 1874.

The Bill of Mr. Stansfeld followed the lines of the Report of the Royal Sanitary Commission in adopting the faulty distinction of "urban" and "rural" sanitary authorities, but it did not embrace some of the improvements suggested by the Commission.

Mr. Stansfeld himself has explained that one of the keynotes of his policy was "to secure the intelligent co-operation of local authorities by enlisting them of their own free will in the work." Local governing bodies could not be driven but led, and "the policy of respect and trust towards local administrations was deliberately adopted." The errors into which Mr. Stansfeld fell might have been avoided if the President of the Local Government Board would have taken counsel with the experienced Medical Officer of the Department. Mr. Simon had been transferred, in 1857, from the office of Medical Officer of Health to the City of London, which he had filled with great distinction, to the post of Medical Officer to the Privy Council. "When," says Mr. Carter, "he became Chief Medical Officer to the Privy Council, he proceeded to organise a staff of competent observers for the investigation of disease, and, by the aid of such men as Buchanan, Seaton, Radcliffe, and Burdon Sanderson, he set himself to unravel the profoundly difficult and complicated questions that surround the origin and propagation of epidemics. The department of which he was the head became a training-school in which young medical men

were taught how inquiries of this kind should be conducted, and by what sources of error they were beset. The junior inspectors, selected on account of their presumed or proved aptitude for scientific research, when employed in investigating the origin and diffusion of local outbreaks of disease, had the great advantage of being able to submit their draft reports to the criticism of their immediate chief, by whom probable sources of error were pointed out, and doubtful questions were suggested as matters for further inquiry before the Reports were laid before the Parliamentary head of the department, and were finally adopted and issued as its work. In this manner was brought about the absolutely unrivalled accuracy for which these documents have been distinguished, and which has caused the yearly volumes containing them to be in a demand far exceeding the supply, as the most precious records of methodical sanitary investigation. Unike the General Board of Health, the Medical Department of the Privy Council has had no theories, and its function has been only to learn and to declare the truth. As a whole the department was both a place of research, in which certainties were surely, if slowly, accumulated, and a furnace in which sanitary knowledge was tried, and in which the errors of hasty generalisation were exploded. At the same time it was a centre which had established the best relations with local authorities all over the country, and its officers were hailed as friends in council wherever they bent their steps. Besides this, the supervision of vaccination had brought the Medical Inspectors of the Privy Council into contact with medical men all over England on a system which ought to have furnished a model for the relations between the Central Department and the Medical Officers of Health."—*Lancet*, May 16, 1874.

The chief of the Medical Department of the Local Government Board, to which the medical officer appointed by the Privy Council is now attached, could have enlightened the President on the proper sphere of action of the Poor Law medical officers in supplying prompt and accurate local knowledge to superior health officers, and as to the machinery which should be employed in the administration of the Act. The President preferred to treat the Medical Department as if it had no existence. He was practically irresponsible. Nominally the Local Government Board consists—besides the President of the Board—of the President of the Privy Council, of the Secretaries of State, the Lord Privy Seal, and the

Chancellor of the Exchequer. It would be interesting to know how often these high functionaries are summoned to confer with the President of the Local Government Board, and how frequently the President is left, with his staff of permanent secretaries, clerks, and inspectors, to follow his own devices or the suggestions of one of the standing officials. A department thus constituted has readily inherited the traditions of the old Poor Law Board in its treatment of skilled medical advisers. Repression of medical men, and studious abjuration of any part or lot in the utilisation of the technical knowledge at the disposal of the Board, led to the scandals which disgraced the administration of the metropolitan workhouses, and more recently to the growth and maintenance of an epidemic of contagious ophthalmia in the workhouse schools, which attained dimensions and produced results too vast and lamentable for official disclosure. Pursuing the thread of the old policy of distrust and neglect of trained and experienced medical experts, the President determined to rely on the light of innate intelligence and inspiration, coupled with the defective recommendations of the Sanitary Commission. Nevertheless, in the passage of the Bill through Parliament, its defects were ably exposed by members of the House of Commons, by the Joint Committee on State Medicine of the British Medical and Social Science Associations, the Parliamentary Bills Committee of the former Association, and the Poor Law Medical Officers' Association. It was shown that the Bill did not, and could not, remedy the opposition or indifference of the local authorities which rendered sanitary laws inoperative, the clashing of jurisdictions within the same area, and the want of control possessed by the central authority in certain important matters. The jurisdiction of the Local Government Board did not extend to the pollution of rivers and streams; the utilisation of sewage; the execution of the Burials Acts; the sanitary regulation of factories, workshops, mines, ports, emigrant depôts, shipping; the visitation of hospitals and asylums; the regulation of coroners' inquests; the supervision of gas and water supply; the qualification of medical officers of health; and the operation of the Adulteration of Food Acts and the Pharmacy Acts. The confused limits of districts, the duplication of authority both in town and country, the abrupt and injurious distinctions between "urban" and "rural" sanitary authorities, were pointed out. The evidence taken before the Sanitary Commission had

proved that impediments to sanitary reform, and difficulties relating to suburban and border populations, had arisen from the management of adjacent districts by authorities of different constitution and different elements and with different powers. The isolation of urban authorities from the general sanitary management of the surface of the country was wholly unnecessary. The various authorities should have been combined and made to act together within single areas for common objects, such as drainage and water-supply. The medical duties under the Poor Law, the statistical duties under the Registration Act, and vaccination duties under the Vaccination Acts, were allowed by the Bill to remain under a different local authority from that which was appointed to administer sanitary regulations. There were to be hospitals under each of the two authorities—workhouse infirmaries under Boards of Guardians, and hospitals for cases of epidemic disease provided by the urban sanitary authorities. Unification of authority under the Bill was permissive only instead of being compulsory. Furthermore, the 1,500 small bodies in whose hands the Bill placed the sanitary administration of the country were composed of the very men whose interest it was to perpetuate sanitary defects. The class of cottage and hut proprietors established as authorities under the Bill were just the very persons who would aim at not making the required improvements; and to the caprice of these authorities were left the medical officers to be appointed under the Act, and to these dependent medical officers was assigned the duty of making recommendations for improvements which would infallibly bring them into collision with their employers and masters. The medical officers were to be left entirely unsupported either by the Local Government Board or any intermediate authority. The only person to whom the medical officer could look for countenance was the inspector—the lay inspector to be appointed by the Local Government Board, and sent down by the Board to compel the action of local authorities in regard to sanitary defects. The joint Committee asked for the combination of *unified* local authorities in extended areas as higher and intermediate authorities with special functions. A County Board or Board of Appeal was necessary as a local controlling authority, acting between the ratepayers and the smaller local authorities and between the local authorities and the Local Government Board, with its own legal, medical, and engineering officers. The County Board should have

a solicitor, thoroughly independent of local influence and not encumbered with private practice; a medical officer, also devoting his whole time to sanitary work, to whom the district officers would send their reports. Within the County area all the roads, sewers, and other works, would be controlled by the County Board. As it was, the same road might be under some half-dozen little local authorities, and the authority over the road might be different from the authority controlling the drain underneath it.

The plan sketched by the joint Committee was rejected by Mr. Stansfeld on the ground that it would be impossible to create County Boards for sanitary purposes alone; and the Bill passed with all its imperfections on its head, "unhouseled, unanointed, unannealed." Mr. Stansfeld appointed ten lawyers and a Royal Engineer to sub-inspectorships for the purpose of negotiating with the local authorities as to the extent and character of areas and the first steps necessary for bringing the Public Health Act into action. These inspectors offered the most contradictory advice in different localities, conforming therein to the views of Mr. Stansfeld, who professed himself ready, in some cases, to favour the combination of districts for the appointment of a superior health officer, and in others to secure the services of the Poor Law medical officer. Some of the small urban authorities combined their districts with the districts of rural authorities to form an area impracticably and unworkably large, but containing in it many urban and some rural districts whose authorities decided on appointing their own sanitary officers. This took place in Gloucestershire, whilst at Cheltenham the Board of Guardians and the Local Town Board were unable to co-operate in the arrangements necessary for affording hospital accommodation for fevers and smallpox cases. In other respects the working of the Act justified the prevision of its opponents and the advocates of unification of areas and authorities. In June, 1873, Dr. Rumsey gave a masterly exposition of the state of the law, which we here reproduce. The care of the sick poor, public vaccination, the appointment of registrars, were controlled by one local authority—the Guardians; whilst the sanitary inspection of towns, villages, and lodging-houses, reports on nuisances and causes of diseases, were assigned to officers appointed by another local authority in the same place. In every *urban* district there were two sanitary authorities—the Board of Guardians and the Town Council or Local Board, with different areas in almost all the

provincial districts. In every *rural* district there were, as a rule two authorities concerned with matters relating to public health—the Guardians and Highway Boards or parish officers, who had the management of the roads, ditches, and drains. There was another anomaly. In a *mixed* district every Board of Guardians consisted of two distinct authorities—first, the whole Board, having the whole area of the union under its control for destitution, sickness, and vaccination, &c.; and, secondly, a part of the Board acting for a part of the union for other purposes of health management. These two authorities cannot, of course, act at the same time, as there must be *two* meetings. At one of these, the proceedings of the sickness authority may be irreconcilable with the proceedings of the health authority at the other meeting, while the "road authority, in another place," is taking an independent and perhaps an obstructive course. Dr. Rumsey agreed with the Royal Sanitary Commission and with most sanitary reformers in believing that, comparing the various existing divisions of the country, the *statistical area* or *registration district* (generally the Poor Law Unions) was the least objectionable unit for sanitary management—the great facts of life, death, and disease being recorded in those areas; and this unit being also the district for the relief of sickness and public vaccination. Taking this unit, there was necessity for the correction of boundaries and the division of some unions for the purpose of conformity with corrected county and parish boundaries. All difficulties would have been obviated if the appointment of medical officers had been deferred until after the settlement of areas and authorities, and if a joint Committee or Council had been elected by the various administrative bodies for the direction of all sanitary matters. Preference unfortunately was given to permissive co-operation, stimulated by central pressure; but the smaller Boards, having generally been formed for the very purpose of escaping from a wider jurisdiction, they would hardly suffer a government inspector without statutory power to drive them into re-union or even co-operation. Conflicts between the several small authorities having separate jurisdiction within the same union were rendered unavoidable by the Health Act of 1872. "The country," said Dr. Rumsey, "scarcely requires more law, unless in the way of revision and consolidation. There are legal provisions against almost every kind of nuisance, every cause of disease and suffering, but they are not enforced—not obeyed. What we really require

is better administration—more earnest, more competent administrators—to carry existing regulations into effect; and it is obvious that a body of men specially selected for sanitary action by the several existing authorities in each registration district, or in each city or borough containing more than one registration district, would be more reliable and efficient than those authorities acting singly, as regards both a due provision for the sick poor and a vigorous enforcement of sanitary regulations." Dr. Rumsey next touched on the necessity for a county authority for certain larger sanitary objects, including river conservancy. The main difficulty in the way of such a measure lay in the want of conformity of the boundaries of unions and parishes on the one hand and of counties and cities on the other. The mischievous anomaly was mainly due to the original Poor Law Commissioners. The question was not likely to be properly settled without a Boundary Commission to act with the magistracy of each county in preparing a scheme for the adjustment of areas and boundaries.

After touching on some other points connected with county administration, Dr. Rumsey proceeded to the question of the appointment of the sanitary officers. The Poor Law Medical Officers were fixed upon by the Royal Sanitary Commission, and specially indicated in the Public Health Act as the proper *sole* health officers for the rural districts, *every* sanitary authority being required to appoint its own health officer, who, on that arrangement, must be a practitioner in ninety-nine cases out of a hundred. These appointments were unfortunately made compulsory by the Act, and the urban authorities showed no disposition to waive their legalised right of making separate appointments. Very few, if any, urban districts had employed their Poor Law Medical Staff in sanitary work. Many rural authorities had determined to appoint their own medical officers as the sole health officers, whilst others selected one or more practitioners, whether on the staff or not, to act in a preventive capacity for the whole union. A large majority, perhaps not less than two-thirds, of the medical attendants on the poor were thus "shunted" and left to maintain their old position as they could, or resist, as they generally would, any unnecessary demands for help or information on the part of the new health officers, who were generally in towns their rivals in practice. Yet, undoubtedly, the union officers were everywhere the proper persons to act as preventives in the first instance—that

is, to report the facts and causes of sickness among the poor whom they were constantly visiting. Not less various were the arrangements for inspectors of nuisances, these being in some cases made independent of the medical officers—in others placed below them as informants, and in some districts constituted a sort of superintendents, with several medical officers of health under each. Advocacy of superior sanitary officers had always been combined with advocacy of aid from union officers and factory surgeons as local deputy health officers. The large groups of districts which were being formed under single officers were often erroneously designated as county appointments. They were nothing of the kind. Counties we knew—boroughs we knew—union and registration districts we were beginning to understand; but these new health officers' circuits could hardly have been more absurdly shaped or confusedly arranged if one of the despised *medical* inspectors under Mr. Simon had contrived them. As matters were it looked as if Government had promoted this embroilment as a great national experiment, to be tried at the cost and inconvenience of the several localities, in order to obtain *data* for a future orderly construction of the system.

In August, 1876, Dr. Joseph Rogers summarised the results of the Health Act of 1872. "At first," he says, "the inspectors (the Poor Law ones, of course, Mr. Simon's staff being set aside), were instructed to urge on rural and urban sanitary authorities that they were to appoint the parish doctors as health officers, with some slight augmentation of their stipends; but so many refused to undertake the duty that the same officials changed front and advised the same authorities to combine so as to appoint one health officer over a considerable area. This has taken place to this extent that there are, or were, forty combinations which include 277 Poor Law Unions—there being, exclusive of the metropolis, 599 separate unions in England and Wales. In these combinations no arrangement was made for obtaining that information as regards the outbreak of epidemic disease which the Poor Law Medical Officers could most effectually supply. Indeed the only source from which most of the health officers could obtain a knowledge of what was going on in their districts—varying from 18,000 to 682,107 acres—was derived from the reports of the district registrars; and owing to the delay in getting these reports an epidemic had by that time either got firm hold of a locality or had worn

itself out. It is true that an effort was made, after a time, by the central department to meet this lack of information, as was exhibited when Mr. John Lambert issued his circular letter to boards of guardians, urging on them the advisability of requiring their district medical officers to return weekly reports of epidemic disease; but as no suggestion was made for any additional payment for the extra work entailed thereby, and as it *was not in the bond*, I need not state that it has been almost universally disregarded. I farther learn that 524 urban appointments have been made, varying in population from many thousands, and salaries quite respectable in amount, down to townships of 296 inhabitants—such as Baldersly, Yorkshire, where the stipend is £3 3s. Here, again, let me note that although half the stipend is paid from the Consolidated Fund, which ought to necessitate some principle in fixing the amount—as an instance in point, showing the absence of all such control, the health officer of Acton, Middlesex, with a population of 4,000, acreage 2,260, receives £70; whilst the health officer for Bedlington, Northumberland, with a population of 13,496, spread over 9,011 acres, receives £90. Multitudes of similar anomalies, as regards payment, population, and acreage, might be readily quoted. In these urban appointments it frequently happens that the health officer selected is a parochial medical officer, his colleagues in the same union being set aside. You may easily understand from this the amount of information which his *confrères* afford him. Similarly there are 268 rural districts in which the same spirit of unnatural selection has been adopted, whilst there are 146 unions in which Mr. Stansfeld's plan for the appointment of the district Poor Law Medical Officers as sole health officers, has been carried out. As regards these latter appointments, they are absolutely ludicrous in their terms. Thus in some a fair addition has been made to the parochial pay; in others the sum of £2 2s., £3, or £3 15s., is the annual honorarium. Bad as the system is thus shown to be, with all its imperfections, more good would doubtless have accrued if the officer could be assured that he would retain his post, but this is by no means the case; having voluntarily associated, each unit may withdraw if it please. Further than this, the officer may be dismissed; and this is pretty sure to be the case if he be sufficiently honest to do his duty—as in the instance of Dr. Deville, of Harrowgate; or to have his salary cut down, as in Yeovil, or as happened in the York rural district, at the

suggestion of Lord Wenlock. Here again it is not a little remarkable that in the early days of the new Poor Law, officers were similarly dismissed, or had their pay arbitrarily altered, if they dared to take a humane view of their duties. It required years of public agitation ere such appointments were rendered permanent; indeed we did not succeed in securing it in all districts until the period when Mr. Goschen became President."—*British Medical Journal*, August 26, 1876.

Any one who takes up the Medical Directory for 1879 may see—if not the identical anomalies specified by Dr. Rogers—similar inequalities still prevailing. The subject before us has been threshed out by so many writers and authorities, there has been such a concentration of special knowledge brought to bear upon the essential defects in the present system, and there is so general an agreement amongst those who have studied the details, that it only remains to specify the principles upon which it is considered that future legislation should proceed, as laid down by Mr. Michael and others:—

1. A Boundary Commission should be appointed to inquire into the boundaries of districts, and to recommend such readjustments as would rectify the anomalies introduced by the Poor Law Commissioners, and allow the counties to be mapped out into districts governed by unified authorities and uniform laws.

2. A reconstitution and consolidation of local authorities are needed. The distinction between urban and rural sanitary authorities, which consists essentially in the circumstance that urban authorities are not concerned with poor relief, either in health or sickness, and that rural authorities are destitute of powers over roads, over sewers already existing and constructed by any authority within their district, and over streets or buildings already erected or to be erected therein, should be abolished. Urban and rural districts alike should possess a single governing authority, exercising the powers of a municipal authority, sanitary authority, destitution authority, school-board authority, and, in places where there are harbours or rivers to supervise, the port sanitary authority and burial board. This authority, being elective and representative, would raise the necessary funds from the ratepayers, and would have full power to direct the payment of expenses incurred in carrying out its functions. The conflicting and separate jurisdictions of local boards of health, improvement commissions, town

councils, drainage commissions, boards of guardians, vestries, burial boards, with their separate staffs of officers and collectors, would cease and be merged under one local authority. As this authority would have more power, and as their members would not be treated as cyphers by the central authority, men of a higher stamp than small tradesmen and farmers might be expected to come forward for seats on the board. It is generally admitted that the destitution authority has failed, both as an authority for appointing and controlling medical officers, and regulating medical relief, and as an authority in sanitary matters. The incapacity of the destitution authority was exhibited in a very few years after the establishment of the new Poor Law. The Poor Law Board and Boards of Guardians alike, have partaken in the failure. Witness the treatment of the medical officers of the poor law by local authorities who have disliked nothing so much as independence, ability, and zeal for sanitary improvement, and have only been anxious to secure medical officers who would accept the barest pittances for their services, and give no trouble to the boards who employed them. Witness the hopeless failure of the Vaccination Acts, as administered in the routine, redtape, and wooden fashion in which the Poor Law Board, and its successor, the Local Government Board, have been wont to treat matters demanding the application of technical knowledge. The employment of the old staff of lay inspectors to start the working of the Public Health Act of 1872, when a body of trained medical inspectors was at the command of the Board, is a parallel case. Let a colleague of Mr. Stansfeld's be heard on this important subject. In an address to the Social Science Association in 1876, Dr. Lyon Playfair observed:—"In England at the present time there is a casual conglomeration of 1,500 separate sanitary authorities without system or cohesion. Their areas of administration are diverse in the extreme, being neither bounded by counties, parishes, nor natural watersheds, and their duties are divided, without meaning, between authorities in the same district. They have been lately put under medical officers of health without preparation or qualification for their duties—some well paid and devoting their time to this important work, others having little more than nominal payment, and giving little more than nominal time to their important duties. Notwithstanding this too sudden and unprepared universal appointment of medical officers, yet, in the administration of the Health Acts, there has been recently

manifested a disposition to 'distrust the doctors,' and to work the Acts, at least at head-quarters, by lawyers and other persons not connected with the medical profession. This is the old error of making common sense the fetish of worship which Archbishop Whately and others have so effectively condemned. Even the most fervent worshipper of common sense, as opposed to technical training, never relies on it in important emergencies of his life. He goes to the lawyer to make his will, or to convey property; he consults the parson on religious doubts, when on the sick bed; and he does not spurn the doctor to cure him of his grievous ailment. But it is well known that the Local Government Board are afraid of the doctors in the administration of Health Acts. Who, beside them, possess the knowledge? I can testify, from an experience of thirty years in sanitary work—and impartially, because I am not in the medical profession—that there is not a class of men in the country who labour so zealously for the prevention of disease as the doctors, though their training hitherto has been cure, not prevention. Certainly their private interests have never been allowed to stand in the way of their efforts to uproot disease, although their living depends upon its existence. This unselfishness in the application of science to prevention has always been to me a source of high admiration. Why, then, is there this vulgar distrust of the doctors in the administration of our Health Acts? Extend this prejudice against technical knowledge, and how absurd it would be. Would you improve the progress of telegraphy in this country by suppressing electricians? or the law and justice of the country by putting down lawyers? Would the Secretary at War promote the conduct of war by suspecting soldiers, or the First Lord the efficiency of fleets by distrusting sailors? Would our railroads and harbours be better governed if engineers were held at a discount? But this is actually the state of things at the Local Government Board—the Health Ministry of the country. The Privy Council handed over to that Board Mr. Simon and his associates, with a wealth of medical experience in public hygiene. Ever since, that wealth has been locked away from public use. Certain I am that their experience could not have guided the Board in the utter confusion of organisation in regard to medical officers of health. They have been appointed without any system. Some have a small parish to attend to, others have a thousand square miles. The last are appointed for

combined districts, but are managed by uncombined authorities, and have neither assistants to aid them nor power to enforce their decisions. The officers of health are without any definite rule for obtaining available knowledge of prevailing sickness, even when it is treated at the public expense within their own districts; and they are not, universally at least, informed of the deaths as they occur. The medical officers of health have been appointed without any examination on their knowledge of State Medicine, and in the majority of cases they do not possess this knowledge. I am perfectly certain that this utter confusion could not have resulted had the Local Government Board consulted the experienced State medical officers belonging to them. This distrust of the doctors in higher administration is simply a general mistrust of science, and the time has now arrived when science must be trusted in Government. Science is entering into the higher education of the country, and the prejudice against it amongst legislators who were educated in a classical university will in time be removed. For the progress of a country depends upon the progress of science, and the welfare of a nation is secured by the most intelligent application of science to its manufactures and to its Government. The health of the country—and that governs the productive power of its people—depends as much upon the applications of medical science as the working of a machine depends upon a good application of mechanical laws. To trust the whole administration of Health Acts to Poor Law Inspectors and lawyers is an amazing example of unbelief in the first principles of the laws of health. The well-being of the people depends upon physical causes, which, when intelligently understood, mean physical science, and the trained physician is the natural and most intelligent agent for extending its knowledge and application to the prevention of disease."—*British Medical Journal*, October 10, 1874. The remarks of Dr. Lyon Playfair on Health Officers lead naturally to the consideration of the proper persons to act in that capacity. There is a general consensus of opinion that—

3. Each district should be provided with one or more Medical Officers of Health, and the persons best fitted to act in that capacity are the Poor Law Medical Officers. Mr. Rumsey has stated "that Mr. Chadwick himself, in the General Sanitary Report of 1842; numerous well-informed witnesses before the Parliamentary Committee of 1844; Mr. Simon on several occasions, especially in his report of 1849, to the authorities of London; and the Rev. C.

Kingsley and others before the Parliamentary Committee of 1854; all showed how easily and properly the officer appointed to attend the poor might inquire into and report on the facts concerning the origin and propagation of disease amongst those committed to his charge; how advantageously he might act as the health adviser of the poor; how well-informed he must necessarily be respecting the locality of their dwellings, the condition of their apartments, their food supply, the physical management of their children, their nursing in sickness, and the effects of their occupation. In this view of the case the sanitary qualifications of the Union Medical Officer becomes a question of vital importance. In Ireland an excellent opportunity for complete preparation for official duties is insured by a regulation preventing the appointment of any medical officer to a dispensary under the age of twenty-three years, thus affording to the candidate two years for further study, or for practical work under supervision as assistant to a dispensary officer, or house-surgeon in a hospital, after obtaining his licence to practise. For such reasons many of us desire to see a special qualification required of all public medical officers of whatever class. There is no reform which would so certainly promote the greater efficiency, or raise the status and remuneration of the Union Medical Officer, as the possession of a special qualification in addition to the ordinary licence."—*British Medical Journal*, August 22, 1874. In our opinion the Medical Officer of Health for the district should have sufficient employment in his public capacities of Poor Law Sanitary Officer, Analyst, and Vaccinator, to occupy his whole time and to render him independent of private practice.

4. Presiding over the County Districts should be a County Board. The formation of County Boards is a foregone conclusion, and will probably be effected by the Legislature at an early date. Each County Board, however elected, should have its staff of scientific officers, amongst whom would be a superior Health Officer for the County. The County Health Officer would receive the weekly reports of the District Health Officers, and be an intermediary between them and the Central Metropolitan Authority. The appointment of County Health Officer would be a prize for the most distinguished of the District Officers. By the County Board a constant and judicious control would be exercised over the districts, and under its jurisdiction would come all matters of county concern. The hospitals, workhouses, and lunatic asylums,

would be subject to the County Board. "No permanent works," says Mr. Michael, "that is, works for gas supply, water supply, or drainage or improvement of the district, should be undertaken without the approval under seal, after public inquiry by this Board, or a Committee of it afterwards reporting to the whole Board, the report of a Committee to be of no effect until such report had been adopted by the Board at a meeting after notice—the seal of approval to be affixed only at a meeting of the County Board. All such matters as in the present state of the law require a provisional order to be confirmed by Parliament should be subject to an inquiry by the County Board, to be confirmed by the Central Local Government Board, and to be laid on the table of both Houses of Parliament for one month before taking effect. All inquiries by the Local Government Board should be conducted by a Court, to be composed of an engineer, with a barrister of at least seven years' standing as his assessor. And at such Court anyone alleging that the works to be constructed could inflict on him an injury, or liable to be called on to contribute to their cost, might appear by himself or his agent in opposition to the granting of the order."—*British Medical Journal*, May 27, 1876.

5. It is generally agreed that at the root of the whole question is the incidence of rating or local taxation. Equality of taxation and prevention of wasteful expenditure must accompany any large measure of sanitary reform.

6. The course of sanitary legislation has sufficiently exposed the defects of the Central Authority. The power of the Local Government Board is greater than that of its predecessors, the Poor Law Board and the Board of Health, for it combines the functions of both with additional duties. It is the supreme destitution and sanitary authority in England, controlling all local destitution and sanitary authorities. It authorises expenditure, sanctions by-laws, rectifies boundaries, regulates the alteration of local Acts, orders the adoption of urban rules in rural sanitary districts, and generally exercises supervision in sanitary matters by means of inspectors, but no control can be applied to the actions of any local authority unless the officials of that authority are partly paid out of moneys raised by Parliament. Another defect is that some of the branches of local sanitary government come under the cognisance of other departments—the Board of Trade, the Home Office, the Registrar-General, and the Privy Council. All the sanitary functions now

exercised by the departments mentioned should be combined and centered in a reconstituted Local Government Board. To the President should be attached a Council of Health, including an engineer, a barrister, and a medical officer. The destitution department might become a branch of the Home Office, and the Local Government Board be replaced by a Ministry of Health, whose chief should be a Minister of the first rank, with a seat in the Cabinet. Under this Ministry would naturally come the superintendence of sanitary matters, medical relief to the poor, and the supervision of hospitals and dispensaries in Scotland and Ireland as well as in England. What advantage results from the present separation of the three divisions of the kingdom?

7. The importance of early notification of cases of zymotic or infectious diseases to the local sanitary authority or health officer, and of the registration of disease has long been recognised by experts. In 1866 Dr. Farr proposed that a special Registration Medical Officer should be appointed by the Government in each registration district, who would collect and publish and utilise the returns of disease obtainable in his district. Efforts have been made from time to time to induce the Government and House of Commons to take up the subject. Latterly the local authorities of some towns have moved in the matter—as, for example, at Bury, Bolton, and Leicester. At Bury the attempt has failed. At Bolton the health authorities have succeeded, under an Improvement Act, in attaching a fine of £10 to the failure of medical men to report cases of infectious disease occurring in their practice. At Leicester there has been strong opposition to the compulsory notification of infectious disease, although a payment of not more than half-a-crown, or less than a shilling, is to be made for each declaration. Medical men generally consider the duty thus imposed or to be imposed as invidious, inquisitorial, and destroying the social confidence reposed in them. Undoubtedly the proper person to make the notification is either the householder or the nearest relative attendant on the patient; but considering the importance of early information to the protection of the community, and the saving of life, it seems reasonable to rely also upon the services of medical practitioners generally. It is doubtful, however, whether medical men should be subject to penalty for non-notification. Perhaps the better plan would be to make the householder liable to a penalty if he did not bring or send to the sanitary authority

a medical declaration. Forms would be supplied to medical practitioners, and it would be the duty of the householder, when informed by his medical attendant of the presence of infectious disease, to obtain one duly filled up. *Refusal of a certificate* by the medical attendant might be visited with a penalty as an obstruction to the working of the law. We are quite convinced that if medical men were satisfied that the public interests demanded their co-operation they would cheerfully give it, and not the less cheerfully if their co-operation were remunerated and not enforced by any obnoxious penalty attached to the neglect of the moral obligation of informing their patients of the existence of infectious disease.

9. Allied to the registration of disease is the certification of deaths. In some large towns there is a considerable proportion of deaths which are uncertified by any qualified medical practitioner. "Thus," according to Dr. Allen Thompson, "in Glasgow in 1872–3–4, with an average death-rate of 29½ per 1,000, as many as 22 or 23 per cent. of the deaths were uncertified. Of these uncertified deaths fully a half were of children under five years of age. The proportions were greatest in the districts with the highest mortality, and they included a larger proportion of illegitimate than of legitimate children, thus showing in Dr. Russell's telling words 'that the more dependent and helpless of itself the life is the less attention it receives from those on whom it depends.' Taking the year 1874 for comparison, in Edinburgh the proportion of deaths which are uncertified is 6 per cent; in Liverpool it is only 4½ per cent.; in the worst districts of London it does not amount to 1 per cent.; while that in the worst part of Glasgow attains the enormous proportion of 44 per cent."—*Brit. Med. Journal*, July 15, 1876. Since then there has been a considerable diminution in the proportion at Glasgow. The high percentage of uncertified deaths at Bristol has recently attracted the attention of the Registrar-General. At Bristol it is the custom of the coroner to hold a "preliminary inquiry" into all cases of death occurring without the attendance of a qualified medical practitioner, and, whenever a satisfactory explanation of the death is forthcoming, to authorise the registrar to register the death. Last year the coroner held 111 inquiries of this nature, and he has suggested that he should be empowered to hold inquests in all cases. The Bristol Sanitary Committee has resolved that this step is desirable,

and forwarded the resolution to the coroner. It has been suggested that it should be made the duty of the medical officer of health to conduct a preliminary inquiry, and where he thinks it unnecessary to have an inquest, to give a certificate of death for insertion in the register.—*Brit. Med. Journal*, March 22, 1879. When Members of Parliament advocate the admissibility of death certificates signed by quacks and herbalists, they are opposing the chief object of registration, which is to obtain reliable evidence of the cause of death. Such evidence is necessary for the publication of correct statistics, and for the protection of the public against crime and criminal negligence.

The Laws relating to Public Health in Scotland are 30 & 31 Vict., c. 101 (1867), amended by 38 & 39 Vict., c. 74 (1875), and 38 & 39 Vict., c. 49 (1875).

## APPOINTMENTS OPEN TO MEDICAL MEN.

The fully-fledged Practitioner of Medicine and Surgery has the choice of several modes of commencing practice. He may attach himself for a year or two as House Surgeon or Resident Medical Officer to some town or county Hospital or Infirmary or Dispensary, at a salary ranging from £60 to £120, with apartments, board, coals, gas, and attendance; or he may enter one of the mercantile services, becoming Surgeon to an emigrant ship, or in the service of one of the many Companies or lines of steamers, such as the Cunard, West India Mail, Peninsular and Oriental, South American, South African, North American, or Australian Mail, at a remuneration which may reach £20 a month, including fees from passengers, or fall as low as £5. In the higher class of marine appointments—such as in the Peninsular and Oriental Company—the position of the Surgeon is very good, and if he is fortunate with passengers he may be able to put by a little money. Or the young practitioner may prefer to take the post of assistant to a practitioner, or to purchase a practice or a partnership, or to settle down in some locality where he can obtain an appointment in one of the Civil Medical Services, Local Government (Poor Law), or Sanitary; or he may choose to enter the Army Medical Service, or the Indian Army Medical Service, or the Naval Medical Service.

### THE MEDICAL SERVICES OF THE ARMY AND NAVY.

The mode of entrance into the Army or Navy is by competitive examination. Candidates for commissions in the Army Medical Department must be 21 and not over 32 years of age, and free from physical defect, constitutional disease, and mental infirmity. Vision must be sufficiently good for the performance of surgical operations without the aid of glasses. For the Indian Medical Service candidates must be between 22 and 28 years of age, and of sound bodily health. For the Navy, candidates must not be under 21 or over 28, and must be in the possession of good health and vision. A Board of Medical Officers determines the physical fitness of candidates in all cases. Candidates are examined in Anatomy and Physiology, Medicine including Therapeutics and Diseases of Women and Children, Surgery, Chemistry, and Pharmacy, and a practical knowledge of Drugs. The examination in Medicine and Surgery is partly practical, and includes operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. Candidates may be examined also in the following voluntary subjects:—French and German and Natural Sciences—*i.e.*, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany. The scale of marks for each subject is: Anatomy and Physiology, 1,000; Surgery, 1,000; Medicine, &c., 1,000; Chemistry, &c., 100; French, 150; German, 150; Hindustani, 150 (for the Indian Service only); Natural Sciences, 300. The eligibility of candidates for the Services is determined by the results of the examination in the compulsory subjects only, but the number of marks in the voluntary subjects is added to the total number of marks obtained by those who have been found qualified for admission, and thus the position of the successful competitors will be improved in proportion to their knowledge of modern languages and natural sciences. The first two days of the examination are devoted to writing answers to printed questions; the third and fourth to *vivâ voce* examinations on all subjects; the fifth and sixth to diagnosis of disease at the bedside in the hospital, the application of surgical apparatus and performance of operations.

The successful candidates undergo a four months' probation at Netley Hospital, near Southampton, having to attend one entire course of Practical Instruction on (1) Hygiene, (2) Clinical and

(Naval and) Military Medicine, (3) Clinical and (Naval and) Military Surgery, (4) Pathology of Diseases and Injuries incident to Military Service. The course on Hygiene includes examination of air, water, food, clothing, &c., of the soldier, the circumstances which affect his health, his duties, and exercise, and meteorology, statistics, and prevention of disease. Military Medicine comprises diseases incident to tropical climates, or prevalent in British colonies or possessions. Military Surgery has special reference to gunshot wounds, and the duties of army surgeons on active service and in the field. In Pathology, special stress is laid upon the *post mortem* appearances in the cases of disease as incident to tropical climates. Attendance must be given in the wards of the hospital, both medical and surgical; *post mortem* examinations and operations on the dead body have to be peformed; laboratory practice and microscopical examinations of morbid tissues and adulterated foods must be undertaken. During the time of his residence at Netley the successful candidate must wear uniform provided at his own expense, and receives an allowance of 5s. a day, and 2s. a day for lodgings provided that he is not quartered in the hospital. In addition to medical study, he has to devote attention to the system of recruiting, and to the mode of keeping the Medical Returns.

At the end of his four months' probation the candidate is again examined in the subjects of instruction during the session, and the marks obtained are added to those which he gained at the first or competitive examination, forming a total by which his position on the list of candidates is determined.

The grades in the Army Medical Department from below upwards are—(1) Surgeon, ranking as lieutenant according to the date of commission, and after six years' full-pay service as captain according to the date of the completion of such service; (2) Surgeon-Major, ranking as major according to the date of his commission, and, after 20 years' full-pay service as surgeon and surgeon-major, as lieutenant-colonel, but junior of the latter rank; (3) Deputy Surgeon-General, ranking as colonel according to the date of his commission; and (4) Surgeon-General, ranking as major-general according to the date of his commission.

On his appointment the surgeon receives £250 a year, and after 10 years' service 17s. 6d. a day. The surgeon-major, on appointment, receives £1 a day, and after five years' service £1 5s. The deputy surgeon-general ranges from £1 10s. to £1 17s. after 35

years' service, and the surgeon-general from £2 to £2 10s. after 35 years' service. The pay of officers is issued monthly in arrear. Relative rank determines choice of quarters, rates of lodging money, servants, fuel and light or allowances in their stead, detention and prize money, allowances for wounds or injuries in action, pensions and allowances to widows and families. Forage is granted for such number of horses as medical officers necessarily keep for duty. A main feature of the present regulations is what is termed the "short service system." At the end of ten years a surgeon may retire, or be informed that his services are no longer required, and be handed £1,000 "in lieu of all pension and retirement." Surgeons disabled by wounds or ill-health, and unable to resume duty, may be retired after 5 years' full-pay service with £400, after 6 years with £500, 7 years with £600, 8 years with £700, and 9 years with £800. As regards promotion, the Director-General may recommend every year six surgeons who have completed 12 years' service on full pay for promotion to the rank of surgeon-major, and all promotions from the rank of surgeon-major and deputy surgeon-general are given for ability and merit on the selection of the Commander-in-Chief. Good-service pensions may be awarded, and medical officers may retire on half-pay, after 20 years' service. Surgeons-major and surgeons are placed on the Retired List at 55, surgeons-general and deputy surgeons-general at 60.

The staff of the Army Medical Department in the United Kingdom, 1877–78, consisted of 6 surgeons-general, 17 deputy surgeons-general, and 508 surgeons and apothecaries—a total of 531. The pay of the Department amounted to £196,473, with contingencies of £578. The pay of militia surgeons and allowances to private practitioners amounted to £9,135. Extra pay of Army Hospital Corps, £4,116; cost of medicines, £191,000. The pay to staff of general hospitals was £4,287, and for treatment of lunatics, £9,700.

The Army List for 1879 shows that the present strength of the Army Medical Department consists of 10 surgeons-general, 30 deputy surgeons-general, 542 surgeons-major, and 295 surgeons—a total of 877 medical officers, or adding the director-general, 878.

The average annual death-rate of medical officers of the Army is very high in comparison with deaths in civil life. The average annual death-rate per 1,000 adult males in England is 9 to 10; army officers, exclusive of medical officers, 15; army medical

officers from 1839 to 1854, 34; during Crimean War, 67; since Crimean War, 20. Average death-rate of army medical officers during the last 30 years, 30. The chief mortality is not among the older men, as in civil life, but among the younger men of the Department. The actual death-rate of the Department is 44 per cent. greater than that of the males in civil life of all classes, and 75 per cent. greater than that of males of the same class as the Army Medical Department.

The Medical Warrant of 1858 was hailed with great satisfaction by the Army Medical Department. Before it was promulgated the assistant surgeon ranked as lieutenant and the surgeon as captain, but the ranks were only nominal, and the medical officer found himself practically inferior to the youngest ensign last posted to a corps. To use the words of Lord Dalhousie—"Service was postponed to inexperience, cunning to ignorance, and age to youth." The Warrant of October, 1858, created 4 ranks—1. Inspector-General of Hospitals, ranking with colonel, and after 5 years with brigadier-general; 2. Deputy Inspector-General of Hospitals, ranking with lieutenant-colonel, and after 5 years with colonel; 3. Surgeon, Staff or Regimental, ranking with major, and then Surgeon-Major after 20 years' service with lieutenant-colonel; 4. Assistant Surgeon, ranking with lieutenant, and after 6 years with captain. Inspectors and Deputy Inspectors were retired at 65; Assistant Surgeons, Surgeons, and Surgeons-Major at 55. All after 25 years could retire on $\frac{7}{10}$ths of their full pay. Honours, widows' pensions, and all other advantages were granted to medical officers as to military officers of corresponding rank. Relative rank entitled medical officers to substantial benefits in the choice of quarters, rates of lodging allowance, fuel, light, and prize money, and widows to increased pension. Provision was made for admission of candidates by competitive examination, and Government announced its intention to establish lectures on military medicine, surgery, and hygiene. An examination was to be instituted for promotion of Assistant Surgeon to the rank of Surgeon. Assistant Surgeons were to be promoted by seniority and also for distinguished service; Surgeons and Deputy Inspectors by selection. For promotion, the terms of full-pay service were fixed for Assistant Surgeons at 5 years, for Surgeons at 10 years, 2 being with a regiment, for Deputy Inspector 5 at home and 3 abroad. Allowances for foreign-station service with the army in the field

and field allowances were awarded. There was no diminution of allowance of forage, and no stoppage out of pay for oats, hay or straw. An increased rate of half-pay was to be given to those obliged to retire on account of sickness or attaining the ages of 55 and 65. The pay of Assistant Surgeons began with 10s., rising to 15s. after 10 years; the Surgeon began with 15s., and rose gradually after 25 years to 25s. The Deputy Inspector ranged from 28s. to 34s., and the Inspector-General from 40s. to 45s. Steps of honorary rank on retirement, and good-service pensions, and creation of 6 honorary physicians and 6 honorary surgeons, completed the attractive programme.

The number of Assistant Surgeons in 1858 was 648, and of Surgeons 344.

The new Warrant worked well, and attracted good men; but the Warrant was objectionable to the authorities and military powers, and it was soon tampered with. Actual privileges were cancelled by an arbitrary memorandum from the Commander-in-Chief; in many parts of Her Majesty's dominions the Warrant was either unrecognised or not fully acted upon, and in 1861 a Circular issued from the War Office altering the 16th clause, conferring the rank of major on Surgeons just promoted from Assistant Surgeons. Rank as major! yes, but *junior* of that rank. Uneasiness and protest, and ill effects on the students at the medical schools, were the natural consequences. A Warrant issued on the 7th March, 1863, restored the relative rank which had been abstracted, but the privilege of presiding at mixed Boards was rescinded. The medical officer was interdicted from presiding at Committees—in other words, he could not have his proper voice in mess and band arrangements. In the Army List the medical officers were placed below the quarter-masters. Nothing was said about forage, concerning which difficulties had arisen owing to a technical mistake in the regulations—forage had been allowed to regimental but not to staff officers. Complaints were made that exchanges were prevented, and that medical officers on sick leave were put on the staff. An unfortunate promotion of a newly-created Assistant Surgeon over the heads of 460 Assistant Surgeons aroused vehement indignation. Promotion had been very slow since 1858. In 1859, 11 Assistant Surgeons had been promoted to the rank of Surgeon; in 1860, 10; in 1861, 4; and 1862, 19. Another grievance was the length of service on full pay before a medical

officer could retire. The exposure of the medical officers on service was greater than that of the military officer, but the latter was far better off in respect to retirement. The discontent of the department resulted in 15 candidates competing for 45 vacancies. A Committee which had been appointed to inquire into the rank, pay, and position of the Medical Officers of the Army and Navy issued their Report early in 1866, and in April, 1867, a new Army Warrant improved the position of the medical officers. Pay was increased. Inspectors-General could ultimately obtain £2 10s. after 35 years' service. Deputy Inspectors-General obtained an increase of a few shillings a day, beginning with £1 10s., proceeding to £1 12s. after 25 years' service, to £1 15s. after 30 years' service, instead of £1 14s., and reaching £1 17s. after 35 years' service. Surgeons-Major were to begin with £1 4s., and to rise after 25 years' service to £1 7s. Surgeons on promotion were to draw 17s. 6d. instead of 15s., and after 15 years £1 instead of 18s. Assistant Surgeons were to begin as before with 10s., to receive after 5 years 12s. 6d., after 10 years 15s., and after 17 years 17s. 6d. The half pay of Surgeons-Major was increased. A rate of half pay, *not exceeding* one-half of the full pay at the time of retirement, was granted to medical officers retiring for their own convenience after 20 years' service, and permanent half pay was allowed to medical officers invalided and obliged to retire from ill health after 20 years' service. In 1867, also, Dr. Logan, the Director-General, effected the almost entire abolition of the "confidential reports" which had occasioned so much dissatisfaction. Relative rank was inserted in the Army List. For a time the prospects of the department became brighter, and more candidates came forward for the appointments. In 1868 the total number of medical officers in the service was 1,074—45 in the highest ranks, 357 Surgeons-Major, and 672 Assistant Surgeons. Promotion was still slow, for the Assistant Surgeon had the prospect of 20 years' service before promotion. Owing to a sufficiency in the supply of officers in 1868, the Army Medical Examinations were discontinued till 1871. In 1871 there were 57 candidates for 36 appointments. The necessity for accelerating promotion was still felt. The year 1873 witnessed a radical change in the organisation of the department. The regimental system was virtually abolished and the staff system was introduced. The Warrant of the 1st March, 1873, established the four grades as they at present exist—Surgeon, Surgeon-Major,

Deputy Surgeon-General, and Surgeon-General, with nearly the same relative rank. The grades of Assistant Surgeon, Deputy Inspector-General of Hospitals, and Inspector-General of Hospitals, were abolished. Relative rank was to regulate choice of quarters, &c., and forage was to be allowed for horses on duty. Attachment to a regiment or battalion was to be for five years. A double qualification was required for admission into the department. Surgeons were to pass an examination before promotion to the rank of Surgeon-Major. Promotion of Surgeons was to be by seniority, but promotion was also to be the reward of distinguished service. Surgeons serving in India might be granted local rank as Surgeons-Major after 12 years' service. Promotion from Surgeon-Major to the higher ranks was to be by selection. Amongst the other regulations were the old ones of good-service pensions, honorary rank granted without pay, the appointment of six Honorary Physicians and six Honorary Surgeons to Her Majesty, and the rates of half pay allowed on voluntary and compulsory retirement. A Supplementary Warrant in October, 1873, made the pay of a Surgeon after 15 years' service 17s. 6d. a day, and gave forage to those in receipt of it before 1st March, 1873.

No Warrant has occasioned more dissatisfaction or produced more grievances than that of March, 1873.

1. The abolition of the regimental system, to which many were attached, and in accordance with the rules and customs of which many had expended considerable sums of money, was abolished suddenly with a single stroke of the pen. Medical officers were removed from their regiments, and received no compensation for their previous outlay. The convenience of the medical officer was not considered for a moment in making the necessary changes, and justice was ignored.

2. The Warrant cancelled the Warrant of 1858, and involved a breach of privileges accorded by that Warrant in respect to precedence, the presidency of mixed committees, forage, and departmental or relative army seniority when doing duty with regiments. The five years' system placed the medical officer at a disadvantage in regard to quarters, for the choice of quarters was dependent on regimental seniority.

3. By the Warrant the rule of retirement of Surgeons and Surgeons-Major at the age of fifty-five and of Deputy Surgeons-General and Surgeons-General at sixty-five might be dispensed

with. This was a direct contravention of the Warrant of 1858, and was calculated to impede promotion still further.

4. The relative rank conferred on the medical officers was inferior to the parallel grades of Controller, Deputy Controller, and Assistant Controller, who ranked respectively on appointment as Major-General, Colonel, and Lieutenant-Colonel.

5. The Director-General of the Army Medical Department was treated as a cypher in regard to selections of officers for promotion. He was effaced, and the Commander-in-Chief was the authority selected in his stead.

6. Promotion by selection as the rule, instead of by seniority as the rule and selection as the exception, seemed calculated to affect injuriously the interests of faithful and efficient officers, and to open the door to the abuses of patronage. There was no guarantee of promotion at the end of fifteen years for the Assistant-Surgeon.

7. The subscriptions of medical officers to band and mess were only exceeded by the Lieutenant-Colonel of the Regiment, and yet the medical officers were placed at mess as regards precedence and authority below the most recently appointed sub-lieutenant or promoted non-commissioned officer, and had no voice either in the one case or the other.

8. Retiring allowances were regarded as inadequate.

9. The continued appointment of military officers to the post of Governors of General Hospitals was the cause both of needless expense and chronic irritation in the department. Netley Hospital was commanded by a military officer with a salary of £1,000, and a military secretary with £500. Such officers were not wanted at Haslar, Melville, and Woolwich.

A year's experience of the Warrant did not make the department more contented. In 1874 there was great pressure in the department. Officers arriving from foreign stations after lengthened service were posted to do home duty without the usual sixty days' leave. Promotion was at a standstill. More than fifteen officers of fifteen years' standing as Assistant-Surgeons (now called Surgeons) were waiting for promotion. The privilege of retirement had become illusory. The medical officers found themselves deprived of forage allowance, compelled to pay band and mess expenses, and subjected to most of the expenses of the regimental system without its comforts, and to the inconveniences of the staff system without the privileges of combatant officers. Each year

witnessed a diminution in the number of officers available for the duties of the department and an increase of work. Periods of leave and leisure were curtailed, whilst the term of service in the junior ranks was lengthened. "In 1859 the average general service in the junior rank without promotion was seven years; in 1860 it was eight years; in 1862 it had risen to nine years; in 1864 it had risen to ten years; in 1866 it had come to twelve years; in 1868 it had come to thirteen years; and from 1870 to 1874 it had been fifteen years. There was a contrast to this in the Indian service, where it was established that after twelve years' service the medical officer was to receive promotion" (speech of Mr. E. Hart, *British Medical Journal*, May 9, 1874). The Warrant of April, 1876, which is still in force, and the main features of which have been already set forth, established the short service system of ten years with compulsory retirement in case of non-selection for permanent appointment with a bonus of £1,000. After leaving Netley, where the candidate was to be in receipt of five shillings a day, he was to be sent on foreign service, to India or the colonies. Every year six Surgeons—less the number might be, but not more—might be promoted to the rank of Surgeon-Major after twelve years' service. The new Warrant cancelled clause 15 of the Warrant of 1873, under which a medical officer attached to a regiment or battalion should remain with it as a rule for five years. Retirement of Surgeons-General and Deputy Surgeons-General was to be compulsory at sixty years of age, compensation being made for any loss sustained by the operation of the rule—*i.e.*, by the substitution of sixty for sixty-five as the age for retirement. Surgeons-General and Deputy Surgeons-General were to obtain the relative rank of Major-General in the one case and Colonel in the other, instead of having to serve a qualifying period of three years. Surgeons, if recommended by the Director-General, were to be promoted after twelve years' service to the rank of Surgeon-Major, examination being abolished. The selection for promotion to the higher ranks was retained in the hands of the Commander-in-Chief and Secretary of State.

The Warrant of 1876 was so far beneficial to the existing officers in the Army Medical Department in that it conceded the promotion of Surgeons to Surgeon-Major at the end of twelve years' service, and made earlier retirement of Surgeons-General and Deputy Surgeons-General compulsory, but it redressed none of the other

outstanding grievances. It did not increase the pay or the pensions of officers, or give them back their right to forage. It abolished even the remnants of the old regimental system, and left the medical officer to be sent hither or thither at the caprice of the administration. The ten years' service scheme, though baited with the apparent attraction of immediate payment of £250 a-year and allowances, or about £300 altogether, had these conspicuous defects. There was to be no increase of pay during the ten years' service, although an officer would necessarily become more efficient after a few years' service, and his work for the army would entitle him to increased consideration. Secondly, the operation of the clause would lead to the composition of the Medical Department mainly of juniors, without permanent interest in the Department. This was clearly shown in a very able article in *The Pioneer*, quoted in the *B. M. Journal* for September 2, 1876. The article said :—"Medical officers are not to be permanently entertained as heretofore, but only for ten years, and of these only six per annum will be kept on for promotion to the rank of Surgeon-Major, and for future administrative duties. This plan is ridiculously low, and if the plan be carried out it will result in a department composed as follows :—About forty-five Surgeons-General and Deputy Surgeons-General for the administration of the service ; and assuming fifteen years as the probable time for getting promotion after the rank of Surgeon-Major has been attained (twenty-seven years' service in all), this period multiplied by six will give about ninety Surgeons-Major for the whole British army, the remainder of the Army Medical Department consisting of young men varying from one to ten years' service, about seven or eight hundred in number. This is what it must come to in a few years' time under the terms of the New Warrant ; and what the result will be if war should break out it is startling to contemplate. India alone has now over two hundred Surgeons-Major of the Royal service employed, and when the whole strength of the rank is brought below one hundred, out of which home and the colonies must be served proportionately to the number of troops, there will not be more than fifty Surgeons-Major available for the three Presidencies, not one to each station, much less one to each regiment or brigade. Granted that young medical men can be found to accept the short service system (and the medical journals unite in saying they will not do so), what will be the result after ten or fifteen years ? The

charge of important stations, large hospitals, regiments and brigades will in a great degree devolve on young inexperienced officers, with a fatal result to the army."

It was overlooked that the ten years sacrificed to service in the Army Medical Department would comprise the most active and healthy period of life, and that a few years spent amid hardship and exposure in a tropical climate would entail on many broken constitutions, ill fitted for commencing the career of life over again. The experience gained in the Army Medical Department, largely consisting in the monotonous routine of filling in dreary returns and forms, is not the experience best calculated to secure success in civil life and private practice. Nor was there anything in the aspect of the new unified system to invite those who looked for social intercourse and congenial companionship to relieve the dulness of banishment from home and friends. The liability to be cast adrift at the end of ten years was not likely to encourage parents and guardians to sanction their sons and wards choosing the army as the sphere for employing their talents and youthful energies.

So far as it has been tried the new scheme has failed. The number of candidates has been entirely insufficient to fill the vacancies, the class of candidates attracted has been on the whole inferior, and the pressure in some of the home stations has been so great as to necessitate resort to the aid of civil practitioners. Since the scheme appeared a General Order has been issued from the Horse Guards, directing that medical officers of the army are not in future to be called on to contribute or subscribe to regimental messes or bands. Medical officers are in future to receive staff allowances, but when quartered in barracks will be entitled only to regimental quarters. In 1878 Lord Cranbrook, Secretary for War, appointed a Committee to inquire into the causes of the dearth of candidates, and the Report presented to Parliament this Session is dated July 22nd, 1878. One of the new measures suggested by the Committee is to fill up one-half the vacancies by nomination. In its Report the Committee considered the grievances of the Department categorically:—1. Insufficiency of pay is so far admitted as to form the basis of recommendations for the increase both of retiring and effective pay. 2. Loss of forage is discounted, but a suggestion is made that horses should be provided at stations for use of officers requiring to be mounted for temporary purposes. 3. Loss of a soldier servant is met by the recommendation for

increased pay. 4. The disadvantageous position of medical officers, in regard to quarters, calls forth a suggestion for the provision of suitable quarters in barracks for medical officers obliged to reside there. 5. The present rules for sick leave and sick pay, compared with the special unhealthiness of the army surgeon's employment, are admitted to be quite inadequate and unequal to those of combatant officers. Sick leave on full pay for a year, and, in case of non-recovery, temporary half-pay till recovery occurs and re-employment can be offered, as in the case of combatants, are recommended. 6. To remedy the complaints about inferiority in relative rank and honours, a new and Royal title for the Department, more equitable distribution of rewards, and higher relative rank for Surgeons and Surgeons-Major are suggested. 7. Complaint has been made that the roster for foreign service is not published; the Committee says that it is always open to inspection. 8. The complaint that seniors are often called on to do juniors' duty is said to be capable of adjustment. 9. The complaint that medical officers have to find substitutes during leave has been obviated by an arrangement by which military and civil substitutes are found for absentees. Two months' leave in the year are considered sufficient. 10. Difficulty of exchanging. Exchanges are permitted to those who have had a long term of foreign service. 11. With regard to breaches of faith, the Committee say that the only points on which there are colourable grounds for the charge are :—(*a*) Partial loss of forage. (*b*) Substitution of the staff system for the regimental system. (*c*) Increased difficulty in obtaining promotion to the rank of Deputy Surgeon-General. 12. The advantages of the abolition of the regimental system have been equalisation of foreign service ; increase of allowances for lodging, fuel and light ; attachment to station hospitals ; relieving medical officers from the expense of providing cases of capital instruments. The disadvantage has been chiefly social. 13. Increased difficulty in obtaining promotion to the rank of Deputy Surgeon-General is met by the suggestion for the official promulgation of the rule adopted by the Indian Government, requiring three years' previous service in India from every officer allowed to have administrative charge there. A large proportion of administrative appointments are held in India. 14. The Committee admits the failure of the ten years' service system, and suggests optional, instead of compulsory, retirement at a £1,250 instead of a £1,000 bonus.

In 1868 the percentage of candidates to vacancies was 176 ; in 1871, 158 at one examination, and 242 at the other ; in 1875, 46 ; in 1877, 46; and in 1878, 48; and the Committee adds, that "the diminished supply has necessitated the employment of medical men lower and lower down the pass lists, although even then the establishment has not been kept up."

Before 1859 the Indian Medical Service was suffering from an insufficient supply of medical men, and it compared unfavourably with the Medical Department of the Queen's army. There were inequalities in promotion, pay, and relative rank, disadvantageous to the Indian Service. There were longer periods of service and a lower scale of retiring allowances in the Indian Medical Department. The Indian officer had to pay his passage to India himself; the Queen's officer had his passage paid. It was said that the Indian officer had the worst stations in India and less agreeable duty. The Indian officer had only brevet rank on promotion, and pensions were lower. On the other hand, there were valuable civil appointments open to the medical officer possessing scientific knowledge, and as soon as the Assistant Surgeon obtained the charge of a corps his pay was doubled. One of the best features of the Service was the Widows' and Orphans' Funds, which secured to the youngest Assistant Surgeon's widow £200 a year, and a corresponding increase according to rank, and subscriptions. The contradictory statements of writers are not favourable for the discovery of the exact truth as to the details of the Service.

The Warrant of 1860 contained provisions parallel to those of the Warrant for the sister Service. Exceptions were made as to pay unfavourable to the Indian Service as compared with the British Army Medical Service, and no good-service pension was granted. The Warrant did not place, and it was officially stated that it was not intended to place, the Indian Medical Establishment on an equality with the Medical Department of the British Army, and there were many complaints that its provisions were not recognised in India.

In a letter to *The Lancet*, August 27, 1864, an Indian medical officer wrote as follows:—"The emoluments of medical officers as established by the Honourable East India Company consisted of three items:—(1) military or regimental pay and allowances; (2) staff or charge pay; and (3) head-money. The two latter, in the aggregate, much exceeded the former, and were, in reality, a matter

of great economy, as they kept men to their work, and encouraged them to do it well. According to old rules, Surgeons and Surgeons-Major only drew regimental pay as captains, and the Indian Surgeons and Surgeons-Major felt aggrieved. Even since 1858 the advantages of the increased rank conferred by Her Majesty's Royal Warrant had never been accorded in India, either as regarded position or pay; consequently there was an outcry for the recognition of their rank. This was accorded to them in part in 1860, in a Warrant that carefully excluded them from enjoying the pay of their rank, which, of course, they felt they were legally entitled to and agitated for; but they never expected that their staff salary would be interfered with, as all charges, whether medical, combatant, financial, or store, receive a staff salary in addition to the military pay of their rank."

The letter had reference to a new Warrant which had been issued by Sir Charles Wood in May, 1864, abolishing head-money and staff pay, and increasing the regular pay at the expense of these allowances. The effect of the Warrant was to deprive medical officers in charge of one-third of their pay. The justice of the complaints which the Warrant elicited was admitted by Sir Charles Wood, and led to the issue of another Warrant on the 7th of November in the same year. The new Warrant introduced a superior rate of pay, gave to medical officers of the Indian Army the exclusive right to fill all staff appointments in the Service, promotion to the rank of Surgeon after twelve years' service, and a more liberal rate of unemployed and home pay. The old Indian Funds for Widows and Orphans were closed for new-comers. The consolidated pay was greater than the total of the pay from the three sources above mentioned.

An "Indian Army Surgeon" (*Lancet*, July 22, 1865) thus epitomised the future prospects of the Indian medical officer under the new Warrant:—"First, as regards pay—Every Assistant Surgeon on joining the Service will probably be ordered to do duty for six months at the General Hospital, either at Calcutta, Madras, or Bombay, according to the Presidency he may select; after which he will be posted to the medical charge of a native regiment, when his pay will be £540 per annum; after five years' service he will receive £720 per annum; after twelve years' service he will be promoted to the rank of Surgeon, with the relative rank of major, with £960 per annum; and lastly, after twenty years'

service, he will receive the title of Surgeon-Major, and the relative rank of lieutenant-colonel with £1,200 per annum. Secondly, as regards pension—An officer having served seventeen years will be entitled to retire on a pension of £220 per annum; after twenty-one years' service with £292; and after twenty-four years' service with £365 a year. It should be borne in mind that during the above period a furlough to Europe for three years will be allowed, during which time the medical officer of the Indian Army will draw, when unemployed in England, the same rate of pay as is drawn by his *confrères* in the British Army when unemployed. In conclusion, I may state that there is not a medical service in the world which offers such a high rate of pay as the Indian Medical Service, nor one in which a medical officer enjoys a more independent position. In addition to those high rates of pay the emoluments are often supplemented by an allowance of £100 a year for the extra charge of a civil station, and by the fees due for medical attendance on the families of judges, collectors, magistrates, revenue, and survey officers, &c.; and sometimes by a lucrative practice amongst the non-official class of Europeans engaged in commercial and speculative pursuits, and which at some stations amounts to upwards of £300 a year."

It had been the intention of Sir Charles Wood to obtain an amalgamation of the two medical military services, but he failed to convince the authorities at the War Office. As it was decided at the War Office that the services were to be kept distinct, it necessarily followed that the Indian medical officer was deprived of the charge of European regiments in the British Army, and this gave rise to some disappointment and dissatisfaction. It was also made matter of complaint that the benefit of the warrant, whilst immediately accorded to medical officers in *military* employ, was delayed for more than two years in its application to those in *civil* and *staff* employ, in consequence of official inquiries into allowances—a matter which had been referred to the Indian Government for investigation. It did not please the Service when a general order was issued devolving the full superintendence, professional and economic, of all British hospitals upon the administrative staff of the British medical service—a measure which was the necessary supplement to the separation of the two Services The administrative superintendence of British hospitals had been one of the prizes of the service, and the withdrawal was attended

with money loss and injustice to individuals. The indignation of the medical officers serving the Indian Government was aroused by an insulting order springing out of a condemnatory report affecting the whole of the civil surgeons, which had been made by Lord Napier to the Secretary of State, in consequence of the inefficient state in which his lordship had found a single dispensary at Coimbatore. The report of Lord Napier had called forth from Lord Cranborne an instruction to Lord Napier to take means for insuring the truthfulness of the reports of medical officers, and Lord Napier thereupon directed that the annual report of each medical officer in charge of a civil dispensary should be sent to the collector of the district in view to a certificate of truthfulness being attached to it prior to its submission to the head of the medical department. The withdrawal of the European troops and hospitals from the Indian medical service diminished the number of administrative offices to which the members of the service could aspire. The number of inspectorships and deputy-inspectorships was reduced. At Madras twelve administrative appointments were cut down to seven by the abolition of three and the transference of two to the British Army Medical Service; and whereas one in five had previously attained administrative rank, only one in thirteen could look forward to this promotion in the future. Promotion to the rank of deputy-inspector as existing at the time of the transfer of the Indian administration to the Queen had been guaranteed by Act of Parliament, but by the reduction of offices and the working of a recent rule that surgeons who were not deputy-inspectors at 55 should be pensioned, the prospects of those who had been long in the service as Surgeons-Major were deeply clouded. Moreover, promotion to the office of deputy-inspector was often governed by mere favouritism, and many deserving officers were passed over. Sir Stafford Northcote stated that compensation for the loss of succession to administrative offices transferred to the British Army did not fall within the scope of ordinary official principles of compensation, but it must be noted that when the second inspector-generalship in Bengal was abolished in 1869 it was decided to create an extra pension for bestowal at intervals of five years on two deputy-inspectors who had served as deputy-inspectors for five years. The most injured persons were the senior surgeons-major, whose pay and pension were less than the higher ranks of the military. Surgeons-major were drawing 1,000 rupees a month, whilst lieutenant-colonels of the same

standing with whom they ranked were pocketing 1,428 rupees a month. Inspectors-general were paid at the rate of £250 a month, whilst major-generals of the same standing with whom they ranked were drawing £350 a month. Thus rank was given and pay withheld. But not only was the pay of the Indian Surgeon-Major less than that of the corresponding military rank, but it was less than the pay of the British Surgeon-Major, and the pensions were less also. The prizes in the service were attained by few, and medical officers were prohibited from holding any of the numerous and lucrative civil, political, and staff appointments which were open to the military. Honorary distinctions were systematically withheld. For the sake of economy several appointments were vested in one man, the total pay granted being much less than the aggregate of the proper salaries belonging to each office. Staff allowances guaranteed in the Act of Parliament transferring India to the Queen were taken away, and the majority of appointments, civil and military, were paid at a *lower* rate than the pay of the rank laid down in the Secretary of State's Despatch of May, 1864. The Furlough Rules of 1868 set forth that leave should not involve forfeiture of appointment; that an officer proceeding on furlough would be allowed pay at the rate of 50 per cent. of the salary of his substantive office, and that officers of the Indian military and medical service would be required to notify their intention to accept these rules on the first occasion of taking furlough. Yet Sir John Lawrence and his Government ruled that regimental medical charges were not to be considered appointments in the sense of the Furlough rules, and refused sick leave to medical officers on the same terms as were granted to the military officers—namely, twenty months' leave, 50 per cent. of the salary, and return to their regiments. Some officers who had served ten or twenty years with their regiments were refused those privileges. Six months later the medical officers in civil appointments were similarly treated. The Government had decided that the medical officer in charge of a civil station had a claim to return to them, and many holding them went home. Their appointments were filled up, and an order was issued that such officers should only retain a lien on some similar appointment, and should not have any claim as a rule to reappointment at the same station. Plainly interpreted this order meant the sale of the medical officer's house and furniture at a ruinous loss, the deprivation of this lien on 50 per cent. of his

salary while on furlough, and probably on his return being kept waiting for months for a station, and, if he ever obtained one, having to purchase a new house and furniture for very much more than he had realised for his own.—Letter from an Indian officer, *Lancet*, August 28, 1869.

After continuous clamour on the part of the victims of this jugglery, the Indian Government, in 1871, rescinded the order relating to the regimental officers, but withheld the privilege from the civil medical officers, although the revised civil furlough regulations reserved for the civilian a lien on his substantive appointment. In 1867 the new consolidated pay for the officers in civil and staff employ was issued by the Government of India. The order created two classes of civil stations, placing only a very small proportion in the first class. The new scale of civil pay was based on half batta allowance. In 1864 full batta had been promised to all officers in the service before 1860, and the full batta pay was greater than the new staff salary in most cases, so that the medical officer who was doing nothing might be receiving more pay than the medical officer who was being worked to death. The warrant of 1865, with its boasted increase of pay, proved to be delusive. In Bombay there were 145 medical officers, and only 37 were in military employ, so that the warrant of 1864 was only applicable to a small minority of the members of the medical service. Under the new rules a civil appointment might be worth less than "unemployed" pay, and very much less than regimental pay. An assistant-surgeon of six years' service stated (*Lancet*, May 11, 1867) that he received in his civil station 410 rupees, 14 annas, that the pay of his unemployed rank was 433 rupees, 10 annas, and that the pay he would receive, if in charge of a native regiment, was 600 rupees. And, in point of fact, the pay on duty at a civil station might be less than the pay on leave, for on leave a medical officer was entitled to the full pay of his rank. The pay on leave was greater than the pay of nine-tenths of the civil appointments. Consolidated pay was less than the pay of rank plus staff pay would have been. Contrast now the condition of the new-comers, the assistant-surgeons, with the prospect described in the letter which we quoted at the outset, from "An Indian Officer." The fortunate assistant-surgeon was led to anticipate that if he arrived in India and received charge of a regiment, he would draw 450 rupees a month, and that there was every prospect of his obtaining such

an appointment at the end of about six months after his arrival in the Presidency. Perhaps, before going in for the competitive examination, he had applied to the India Office as to the meaning of the word "unemployed," and had received a copy of the warrant of 1864, stating—"unemployed pay, 286 rupees, 10 annas; in charge of a regiment, 450 rupees." In the belief that pay with a regiment would be £45 a month, he passed the examination and went to India. After a little while he is sent up country with a detachment or regiment, and receives only 286 rupees, 10 annas. On remonstrating, he is told he has not passed in Hindostani. Another, who had passed in Hindostani and been placed in a similar position of responsibility, also receives 286 rupees, 10 annas, because he is not "in charge"—he is still "unemployed." A year or two afterwards, a memorandum is issued by the India Office for the information of candidates for the service, and the memorandum states that surgeons under five years' service, appointed to take charge of a native regiment, will receive 450 rupees per mensem, if they have passed the "lower standard of examination in Hindostani." But when the hopeful assistant surgeon arrives in India, and is sent to take charge of a regiment, having passed the examination in Hindostani, he is either still kept on "unemployed" pay, or receives what is termed "officiating" pay, which is made up of "unemployed" pay and half the difference, perhaps, between "unemployed" and "regimental" pay, because he is only acting for some one who is on furlough, or is acting for some one who is acting for some one else. The "unemployed" and the "officiating" pay confer on the assistant surgeon the privilege of paying for his own transport and the transport of his servants by road or rail; and no sooner has he settled down into quarters, or taken a furnished house at the scene of his labours, than he is transferred, at his own cost, to some other acting appointment, and he may be kept knocking about the country, at alarming expense, for five or six years, not only saving nothing, but getting into debt. At the end of five or six years he is appointed to a regiment; but when the furlough becomes due the medical officer may be unable to avail himself of it, as he only draws half-pay during the time, and has to provide his expensive passage home and out again out of his own resources.

Among the more recent changes in the regulations not already enumerated, have been the application of the rule of the Royal Warrant of 1866 for the Army Medical Department, of promotion

of surgeons of less than twenty years' service to the rank of surgeon-major for distinguished service, the promotion being substantive, or, in other words, the rank carrying with it increased pay and allowances, and the abolition, in 1873, of the title of assistant surgeon, and the establishment of the four grades of surgeon, surgeon-major, deputy surgeon-general, and surgeon-general.

The disadvantages of the Indian medical service are banishment from home and friends; the liability of married men being separated from their wives and children; the expenses attendant on passages to England and back to India, both for the medical officer himself and the members of his family, if he has one; the possibly injurious effects of the climate; the increased expense of living and depreciation in the value of the rupee, which, nominally two shillings, may not go further than a shilling or tenpence at home; domestic troubles and trials; inadequate pension and retirement allowances; "unemployed pay;" "officiating appointments;" frequent and expensive moves and the diminished chances and lower remuneration for private practice.

The duties of the medical officer in India may be of a varied character. In practice he has to perform operations, both general and special, the latter including operations on the eye. He must be able to treat disease in all its forms, and carry out the measures, preventive and therapeutic, necessary to combat epidemics and visitations of cholera. He may be required to make analyses of waters for the purpose of determining their potability or the reverse, and other analyses for the detection of poisons. He may have to direct the construction and sanitary arrangements of hospitals, barracks, gaols, and schools. He should be a man of scientific acquirement and general information, in order that he may take advantage of the openings which may present themselves for advancement. The great attraction of the Indian service has always been the number of civil appointments for which medical officers are eligible. In an address to the candidates at the opening of the Army Medical School at Netley, on April 1st, 1875, Sir Joseph Fayrer enumerated the following:—"Principal and Professors in all the subjects of a University Curriculum in Medicine in the Colleges of Calcutta, Madras, and Bombay, and also a limited number in the College of Lahore; Superintendent of Native Medical Schools at Agra, Nagpore, Patna, Dacca, &c., these generally being held in combination with the office of civil surgeon of these important stations.

The important subject of medical education will be entirely in your hands, whether as Members of the Medical Faculty, of the Senate, or as Examiners in the Universities of Calcutta, Madras, or Bombay, or as Professors in the Medical Colleges. The new College of Calcutta, which was founded in 1833, by Lord W. Bentinck, is the largest Medical School in the world. When I left it, in 1872, it numbered over 1,300 medical students on its rolls, and it is increasing every year. There is perhaps nothing that has exercised a greater political or social influence for good on the native mind, or done more to consolidate our hold on the affections of the people and the country—since the days when Broughton and Hamilton gained for the British power the earliest concession of privileges, which gave us our first hold in the country from the Moghul of Delhi; and since, when in 1836 the learned Pundit Moodhosoodun Guptoo, laying aside the prejudices of caste, initiated the study of anatomy by dissecting the human body—than the study and extension of medical science in India. Among offices that may be or have been held by medical men in India, the following may be mentioned :—Surgeons and assistant-surgeons and general surgeons of the General and College Hospitals; superintendents of eye infirmaries; garrison surgeons; field surgeons and assistants to armies in the field; surgeon to the Viceroy; surgeon to the Commander-in-Chief; presidency and district surgeons, marine surgeons, police surgeons; superintendent of lunatic asylums; superintendent of emigration; medical examiner of accounts; principal medical storekeeper; other medical storekeepers; civil surgeons of stations—very numerous and sometimes remunerative appointments, to which are joined others; regimental appointments; chemical examiners to Government; analysers of waters; assay and assistant-assay masters; superintendent of botanic gardens, Calcutta, Scharunpore, and others; of cinchona plantations; forest appointments; superintendent of fisheries; sanitary commissioner to Government of India; sanitary commissioner of provinces; statistical officer and officers on special duty for investigation of cholera—held by two very distinguished students of this school, Messrs. Cunningham and Lewis; inspector-general and inspector of gaols; superintendent of gaols; inspector-general and superintendents of vaccination; political agents; assistant political agents; magistrates, coroners; commissioners and deputy commissioners of divisions—offices involving judicial functions; opium agents and assistants; superin-

tendent of Darjeeling, and others that at this moment escape my memory. With many of these offices are combined other duties, or two or more may be held by the same officer. In most cases the civil and military medical appointments give opportunity for private practice. In the Presidency cities and larger civil stations it is often considerable; and though perhaps not so lucrative anywhere as in former days, it is such as would compare not unfavourably with the results of medical practice in European cities. I have heard it said that the late Dr. N., when Surgeon to the General Hospital in Calcutta about thirty years ago, made as much as one lac of rupees, £10,000 a-year. Things have changed since then; medical men are more numerous, and honoraria are smaller."—*Brit. Med. Jour.*, April 17, 1875.

The contemplated administrative changes in the service, and the separation of the military and civil branches of the department, do not fall within the scope of this Essay.

On the 1st of January, 1875, the covenanted medical service, according to Sir Joseph Fayrer, comprised 675 members of all ranks; of these, 3 were surgeons-general; 22 deputy surgeons-general; 357 surgeons-major; and 293 surgeons.

The Charter of the Medical Department of the Royal Navy is the Order in Council of George III., obtained by Lord Melville through the good offices of Lord Nelson. The order conferred on the Naval medical officers "similar rank with the officers of the same class in His Majesty's Land Service." The Lords of the Admiralty were not inclined to obey the order of the Sovereign, and from 1805 to 1859 there was incessant effort made to secure the advantages which the order had designed to convey. In 1839–40 the state of the Naval Medical Service was so unsatisfactory that a Parliamentary Committee was appointed to investigate its condition, and to make recommendations for its improvement. The result was that the grades of inspector and deputy-inspector were established, and that the pay of the medical officers was increased. Further agitation took place to improve the position of the assistant-surgeons, who were not ward-room officers but still relegated to the cockpit. After a struggle of ten years, a resolution was carried in the House of Commons, in opposition to the Government of the day, to the effect that "the accommodation provided for the assistant-surgeons on board Her Majesty's ships of war is inadequate and insufficient for securing the full benefit of their professional services." This success

wrung only partial concession from the Lords of the Admiralty, who would not permit assistant-surgeons to enter the sacred precincts of the ward-room until they had been three years in the service, and had passed the examination for the grade of surgeon. The outbreak of the Crimean War, and the necessity for obtaining a proper supply of assistant-surgeons, effected that which the order of the Sovereign had been powerless to confer. In 1855 the right to the ward-room was granted to medical officers on their entrance into the service. Then followed the breakdown in the administrative departments of the army in the Crimea, and "the horrible and heartrending" sufferings of the soldiers, which were largely due to the defective powers of the chiefs of the Medical Department, and to the rejection of the advice of Dr. Andrew Smith in reference to supplies of food and clothing, medical stores, and the transport of the sick. The investigations instituted by the Select Committee of the House of Commons in 1856, and those of the Commission appointed in the following year on the sanitary condition of the Army and to inquire into the modes by which candidates for first commissions are selected in the Army Medical Department, led to recommendations which resulted in the issue of the Army Medical Warrant of 1858. A similar Warrant for the Indian Army Medical Department followed. "The Indian Warrant," wrote Mr. Spencer Wells in 1859, "was obtained; but the Admiralty, true to their traditional obstructive policy, still fought hard against memorials, questions in the House of Commons, and the assaults of the Press. After the question of pay was settled that of rank was still disputed. The old admirals and the post-captains still stood out to the last against the horrid notion of a surgeon ranking with a commander and above a lieutenant, instead of after officers of the latter rank; while the idea of a staff surgeon ranking with a post-captain and an inspector with an admiral, drove the naval lords perfectly frantic; and it was only by the unflinching determination of Sir John Pakington to carry out a measure demanded by the public and the press, and one which he knew must be for the good of the Service, that the opposition of the Board of which he was First Lord was borne down, and the Magna Charta obtained. The whole naval service as well as the medical officers and the profession generally, are deeply indebted to Sir John Pakington for carrying this measure, and men of all shades of opinion will look upon him as a great public benefactor long after

he resigns an office he has held with so much honour to himself and advantage to the navy—the right arm of England's material power."—*Med. Times and Gazette*, 1859.

The Naval Medical Warrant of the 30th May, 1859, established four grades of medical officers:—1. Inspector-General of Hospitals and Fleets; 2. Deputy Inspector-General of Hospital and Fleets; 3. Surgeon—after twenty years' full-pay service, including ten as surgeon, to be called Staff Surgeon; and 4. Assistant Surgeon. A double qualification and an examination in hygiene and surgery before a board of examiners appointed by the Lords Commissioners of the Admiralty were prescribed in the warrant. An Assistant Surgeon before promotion to the rank of Surgeon was required to pass such examination as the Lords Commissioners of the Admiralty might require, and to have undergone five years' full-pay service, two of which must have been passed on board one of Her Majesty's seagoing ships. For the promotion of a Surgeon to the rank of Deputy Inspector, ten years' full-pay service, three at least at sea on some one or more foreign stations—and for the promotion of Deputy Inspector to the rank of Inspector, five years' service at home as deputy inspector, or three abroad—were demanded. These periods might be shortened by the Lords Commissioners. Assistant Surgeons were to draw 10s. a day, and rise to 13s. after ten years' full-pay service. Surgeons beginning on 15s. were to have 18s. after fifteen years' full-pay service. Staff Surgeons to begin with £1 2s. and rise to £1 5s. Deputy Inspectors-General to begin with £1 8s. and rise to £1 14s. after thirty years' full-pay service. and Inspector-General to begin with £2 and rise to £2 5s. after thirty years' full-pay service. A liberal scale of half-pay was conceded. Assistant Surgeons, Surgeons, and Staff Surgeons, were to be placed on the Retired List at sixty, Deputy Inspectors-General at sixty-five, and Inspectors-General at seventy. The relative rank of the various grades was fixed as follows:—Assistant Surgeon to rank with lieutenant in the army according to date of commission, and after six years' full-pay service with captain in the army, according to the date of completion of such service; a Surgeon to rank as major in the army according to date of commission, and Staff Surgeon as lieutenant-colonel, but junior of that rank; a Deputy Inspector as lieutenant-colonel according to date of commission, and, after five years' full-pay service, as colonel according to the date of completion of the service; an Inspector-

General as brigadier-general according to date of commission, and, after three years' full-pay service, as major-general according to the date of completion of the service—provided always that commanding officers were always held superior in rank and precedence to every officer under his command. Relative rank was to carry with it all precedence and advantages as to quarters, lodging-money, servants, forage, fuel, and light, or allowances in their stead; but medical officers in all such matters were to be subject to the authority of the executive officer of the military branch while on duty, under the general regulations which might from time to time be prescribed by the Admiralty. Medical officers were to share prize-money according to the proclamations in force at the time, to be entitled to the same allowances on account of wounds and injuries received in action as combatant officers with the same relative rank, to the same honours, and to the same allowances for their families. Steps of honorary rank after a full-pay service of twenty-five years for distinguished service without increase of half-pay, and good-service pensions were to be awarded. Four of the most meritorious officers were to be "Honorary Physicians" and four "Honorary Surgeons" to Her Majesty. The Medical Warrant was not carried out in its integrity. "An order in Council of April 16th, 1861, and an Admiralty Circular of May 7th, 1861, lowered the rank of Surgeons; and the new instructions of the Admiralty of August 6th, 1861, lowered the rank of Deputy Inspectors-General of less than five years' standing, placing them on a level with Surgeons-Major in the army; and lowered the rank of Staff Surgeons by making them doubly junior to Lieutenant-Colonels, whilst Surgeons-Major were simply junior."—Dr. Brown on the "Requisitions of the Naval Medical Officers," 1865.

It has been shown that a similar breach of privilege in the Army Medical Department created so much dissatisfaction that restitution had to be made. "Restitution of the rank of naval medical officers quickly followed. An Admiralty Circular of August 3rd, 1863, conferred equality of rank upon the different grades of medical officers in the two services, with the exception of the Staff Surgeon in the Navy, who continued to be junior to the commander (who is junior to lieutenant-colonels). Therefore the Staff Surgeon in the Navy retained his double juniority, and he was only permitted to count ten years of the Assistant Surgeon's time."—Brown, *loc. cit.*

The other grievances of the Department were numerous:—1. The cabin accommodation afforded was either very inferior to that of the combatant officers of the same relative rank or altogether withheld. Assistant Surgeons could not claim a cabin. 2. By an order of Council issued in 1853, the ships' carpenters, gunners, boatswains, clerks, ensigns, lieutenant of marines, and assistant engineers shared equal prize-money with staff surgeons, surgeons-major, surgeons, and assistant surgeons—in other words, surgeons shared in the fourth class. The proclamation of 29th June, 1865, merely made the alteration of placing staff surgeons in the third class; relative rank was ignored. 3. The term of service in the navy before retirement could be claimed was 5 years or more longer than in the army, for, at the termination of a ship's commission, medical officers were placed on half pay, and the time of half-pay service, though compulsory, did not count. This time averaged 1 year in 5, or 5 in 25 years. In the army there was no loss of time; consequently, whilst an army surgeon could retire after 25 years' service, at the age of 46 or 47, the naval surgeon was obliged to undergo more than 30 years' service and attain the age of 53 before retirement. 4. Pay was inadequate. The assistant surgeon began on £182 10s., and rose to £456 5s. after 25 years' full-pay service, nor could this be exceeded except in the rare cases in which some dockyard appointment or inspectorial rank was obtained. The average number of the promotions to inspectorships was one per cent. During 25 years the average pay was £280. 5. Naval officers serving on shore received nothing but their pay, being mulcted of rations, fuel, light, and services of domestics. 6. Neglect of the naval medical officers in the distribution of honours. During twenty years only one officer (an inspector-general) had been granted the Companionship of the Bath, and he ought to have had the K.C.B. No deputy inspector had been thus honoured. The Victoria Cross had never been awarded to a naval medical officer. In contrast to this 74 naval captains in twenty years were made C.B., and on the Army List there were, in 1865, two K.C.B.'s and fourteen C.B.'s. Ten army medical officers had received the Victoria Cross. 7. The rank of Staff Surgeon was illusory. 8. In all the legislation issuing from the Board of Admiralty, rank and command were made one and indivisible, instead of being kept entirely distinct. Command was not desired or sought by medical officers. All that was asked was that medical officers should have accorded

to them the privileges and social position appertaining to their relative rank, as guaranteed by the Warrant of 1859, and that relative rank should regulate the choice of quarters, servants, and other accessories. 8. The ages for retirement differed in the army and in the navy—staff surgeons in the navy retiring at 60, instead of 55 as in the case of surgeons-major, and inspectors-general in the navy retiring at 70 instead of at 65, the age fixed for inspectors in the army. 9. The very unequal share of pensions accorded to medical officers, and their exclusion from participation in the Greenwich Hospital pensions. 10. Inadequate half pay. 11. Lateness of the period fixed for optional retirement, retiring allowances and honours being insufficient.

These drawbacks made the service unpopular, and the authorities were obliged to admit an inferior class of men into the department, being quite unable to secure men either of the first or second quality. Only three assistant surgeons entered the navy in the first half of 1866. The joint Committee appointed to inquire into the rank, pay, and position of the Medical Officers of the Army and Navy recommended changes well calculated to redress the most pressing grievances, although some were left unredressed. A new Medical Warrant was issued in July, 1866. Staff surgeons were placed on a separate list, and promotion to the rank was to be open to officers for distinguished or special service, although twenty years on full pay might not have been completed. The whole time served on full pay by assistant surgeons was allowed to qualify for the rank of staff surgeon, provided that the examination for surgeon was passed before the completion of ten years' service. The pay of surgeons and staff surgeons was to increase by periods of four years instead of five. Money allowances in hospitals at home and abroad were made in lieu of provisions for medical officers and their servants, and for fuel and light, with a view to place naval medical officers on the same footing as army medical officers. The scale of travelling allowances, extra pay, lodging money, and compensation for losses was to be fixed for naval medical officers according to their relative rank with other naval officers. Cabins were to be assigned according to relative rank, except as regards the choice of the senior executive officer and the staff commander or master. Cabins were to be allotted to assistant surgeons. Staff surgeons were to have servants like commanders, and a staff surgeon was to be appointed to all flag-ships bearing the flag of a commander-in-

chief on a foreign station, with an addition of 5s. a day to his established pay. The age for retirement was fixed for surgeons and assistant surgeons at 55, for staff surgeons at 60, for inspectors and deputy inspectors at 65. Staff surgeons were to rank with commanders according to date of commission, in order to place staff surgeons on an equality with surgeons-major in the army. With the exception of commanding officers relative rank was to determine precedence. Retirement, after 20 years' service on full pay, was granted on half pay not exceeding five-tenths of the full pay to which the officers were entitled. Staff surgeons, after 25 years' full-pay service, were to be allowed £1 a day for half pay, if compulsorily retired at 60 years of age or on medical survey. The pay of medical officers was increased—Assistant Surgeons ranging from 10s. to 17s. 6d., after 14 years; Surgeons from 17s. 6d., after 10 years' service, to 22s., after 18; Staff Surgeons from 24s., on promotion, to 27s., after 26 years' service; Deputy Inspectors from 30s. to 37s., after 30 years' service; and Inspectors from £2 5s. to £2 10s., after 30 years' service. No allusion was made to honorary distinctions. The Warrant failed to give contentment or satisfaction. During 1866 only 11 medical men entered the navy. The number of Assistant Surgeons on the 1st of January, 1866, was 272, on the 1st of January, 1867, 251; 10 Assistant Surgeons became Surgeons, and 10 Surgeons Staff Surgeons during the year, and there were 3 promotions to the rank of Deputy Inspector and 2 to that of Inspector-General of Hospitals. A new Warrant, differing but little from its predecessor was issued in February, 1867. The money allowances to medical officers of hospitals at home were slightly increased, and an increase of 2s. a day was granted to Staff Surgeons who had completed 26 years' service. Three Staff Surgeons were benefited. On the 1st of July, 1867, the number of Assistant Surgeons was 238. The number of candidates began to increase. Dr. Armstrong, who succeeded Dr. Bryson as Director-General, effected a needed change by altering the tenure of shore appointments. The Staff Surgeoncy at Pembroke Dockyard, at Deptford Victualling Yard, at Haslar Hospital, at Yarmouth Hospital, at the Royal Marine Infirmary, Portsmouth, at the Royal Marine Infirmary, Plymouth, at the Royal Marine Artillery Infirmary, Portsmouth, and at Malta Hospital, and the Assistant Surgeoncy at Keyham Yard, were ordered to be vacated, and it was determined that shore

appointments should be held only for a limited period of years. The effect of the new regulations was obviously beneficial to the service as a whole, by creating circulation in the Department and removing the stagnation from which it had been suffering. Promotion generally was very slow. In 1869 the examinations for the admission of candidates into the navy were conducted for the first time by the examiners for the Army Medical Department. By an order in Council, dated August 7th, 1869, the Queen approved the proposal of the Admiralty—that, for the future, no Deputy Inspector-General of Hospitals and Fleets should be promoted to the rank of Inspector unless he had served five years as Deputy Inspector, during three of which he should have been in charge of a foreign hospital or a fleet or squadron.

In March, 1870, was promulgated by the Admiralty a new scheme for naval pay, promotion, and retirement. Pay was made to increase at regular intervals of three years instead of four. Assistant Surgeons were to range from 11s. to 17s. above 14 years' service; Surgeons from 18s. to £1 2s.; Staff Surgeons from £1 3s. to £1 10s.; Deputy Inspectors-General of Fleets from £1 3s. to £1 10s.; Inspectors-General £2 5s. to £2 10s. There was a slight addition made to the half-pay of the upper grades. The maximum rates of retired pay of Staff Surgeons was fixed at £400 per annum, of Surgeons £300, and Assistant Surgeons £200. Compulsory retirement was fixed for Assistant Surgeons at 45, for Surgeons at 55, for Staff Surgeons 60, and for Deputy Inspectors and Inspectors at 65. A medical officer on half pay for whom no employment had been found for five years was to be compulsorily retired. The intention was to reduce the active list to 476—viz., 4 Inspectors, 12 Deputy Inspectors, 210 Staff Surgeons and Surgeons, and 250 Assistant Surgeons. At the beginning of 1870 there were 7 Inspectors, 13 Deputy Inspectors, 96 Staff Surgeons, and 168 Surgeons (together 266), and 235 Assistant Surgeons. One of the features of the scale of payment was the addition of one shilling a day to the pay in each grade for every year of service after a certain period. In the scheme for retirement, Staff Surgeons were bracketed in the second class with officers not equal in rank, and Surgeons with the navigating lieutenant in the third class. The new scheme produced numerous retirements, and created more vacancies for Assistant Surgeons; still candidates could not be induced to come forward, for in August

there were ten eligible candidates for thirty-five vacancies, and in November only six. Apart from the natural drawbacks to a sea life, the service was weighted with the objections of compulsory loss of time on half pay, refusal of retirement, placing Staff Surgeons in the scale of retirement below Paymasters and Chaplains, who were allowed £50 more, remote prospect of reaching inspectorial grades, denial of pensions rightly due to the service, the want of a scheme which favoured early retirements if desired, inequality with the Army and Indian Medical Services, and liability to various kinds of humiliation and inconveniences in the bestowal of appointments, in petty details, and in the nature of the service demanded of the medical officer. In the event of differences between medical officers and commanding officers, the latter were upheld by the Admiralty whether they were right or wrong.

In 1871 it was arranged between the Admiralty and the War Office that Assistant Surgeons entering the Naval Medical Service should have the advantage of attending the courses of professional instruction at Netley. Her Majesty approved a memorial which had been before the Lords Commissioners of the Admiralty, recommending Her Majesty to establish one pension of £100 a year for Inspectors-General and two additional pensions of £50 each for Staff Surgeon and Surgeons of Her Majesty's Navy. These improvements were due to the exertions of Dr. Armstrong, the Director-General, who had effected other beneficial changes in the department. Among other things, he cancelled the regulation of his predecessor that the candidate gaining the highest number of marks in his year should be promoted at the end of five years from his appointment as Assistant Surgeon. In 1872 the service became more popular, seventeen candidates of good class being successful in February, whilst the following year, for the first time, more candidates came forward than there were vacancies to be filled—an event which had not happened for twenty years. The Irish schools, as usual, supplied the greater number of candidates. Out of 19 successful candidates, 1 only was a London man, 2 were Scotch, and 16 Irish. The Army Warrant of 1873, abolishing the title of Assistant Surgeon, led to the abolition of the term in the Navy Medical Department. Two classes of Staff Surgeon were established. In 1874 the unpopularity of the service was as great as ever. The number of officers was dwindling by retirements, and very few candidates could be induced to come

forward for the appointments. The number of Assistant Surgeons fell to forty below the proper number, and an instance occurred in which a medical officer deserted; others declined to serve, and were dismissed—the object sought to be obtained.

A new Medical Warrant was issued under the auspices of Mr. Ward Hunt. 1. Surgeons on entry were to have the same relative rank as paymasters, chief engineers, and naval instructors, ranking with lieutenants under eight years seniority, with uniform corresponding to such relative rank. Previously this rank was only obtainable after six years' service. 2. "Staff Surgeons" to be called "Fleet Surgeons," and "Staff Surgeons second class," "Staff Surgeons;" a small difference of uniform to mark the rank. 3. Inspectors-General to be compulsorily retired at 60 on £2 a day, provided they have completed the period of service now required to entitle them to the maximum pay of the rank. The retirement is equal to £730 a year. 4. Deputy Inspectors-General to be compulsorily retired at 60, if in the first six of their rank, at 33s. a day (£602 a year); the others at 30s. (£547 10s.), provided they have completed the period of service necessary to entitle them to the maximum half pay of their rank. The highest half pay previously attainable was £492 15s. 5. Fleet Surgeons and Staff Surgeons to be placed on the same scale of retirement as Chaplains and Naval Instructors, Secretaries, and Paymasters, the maximum being £450, instead of £400. 6. Retirement of not more than ten Fleet Surgeons at 15s. a day after 20 years' full-pay service in all ranks, or £1 1s. a day after 25 years' service was accorded. Optional retirement on £383 5s. at 48 to 50 years of age was thus substituted for retirement at 55. Compulsory retirement from sickness before 55 was previously accompanied with smaller compensation. 7. All officers entering the service were to have the option of so retiring.

The Medical Warrant of 1875 was a very substantial instalment towards the redress of the grievances of the Medical Department. So far as it went it was excellent, but it left untouched the just claims of the medical officers to privileges and advantages appertaining to relative rank, shore allowances, contingent allowances of all kinds, including widows' pensions for medical officers below the rank of Inspector-General, additional pay for officers in charge of hospitals at home and abroad, allowances for servants, &c., and the compulsory half-pay system, which prevented the completion of

full-pay service without an addition of some years to the time needed for retirement in the army. Moreover, the Warrant rather benefited the two ends of the Service than the Staff Surgeons and Fleet Surgeons. It failed to attract any sufficient number of candidates. In 1877 eighty Fleet Surgeons were waiting for promotion, and Fleet Surgeons had to do the work usually assigned to Staff Surgeons. The cabin grievance still remained open—the medical officer, no matter what his standing, being commonly relegated below, whilst chaplains and paymasters were accommodated on the main deck.

In addition to the appointments already described, the following are open to registered medical men:—

1. Every gaol, house of correction, bridewell, and penitentiary in England has a duly registered surgeon appointed by the Secretary of State. Any officer who, being not less than 60 years of age, has been in prison service for not less than 20 years, or who is disabled by confirmed sickness, age, or infirmity, or injury received in the execution of duty, may, on the recommendation of the Prison Commissioners, be granted an annuity not exceeding two-thirds of his salary and emoluments, or a gratuity not exceeding the amount of his salary and emoluments for one year.

The following list gives the salaries of some of the offices:—

Surgeon to the House of Detention, Clerkenwell, £300
„ „ City of London Prison, - - £250
„ „ Newgate, - - - £250

| Convict Prisons. | Medical Officer. | Assistant Surgeons. |
|---|---|---|
| Pentonville, - | £350 | £220 |
| Millbank, - | £400 | — |
| Dartmoor, - | £375 | £175 |
| Parkhurst, - | £350 | £160 |
| Portland, - | £400 | £215 |
| Portsmouth, - | £360 | £180 |
| Chatham, - | £380 | £205 |
| Woking, - | £450 | £250 |
| Brixton (Female), | £350 | — |
| Fulham, „ - | £200 | — |

Surgeons and assistant surgeons to the convict prisons abroad are appointed by one of Her Majesty's Principal Secretaries of State. The appointment of medical officers of prisons in Scotland

is regulated by the Act 40 & 41 Vict., c. 53, and in Ireland by the Act 40 & 41 Vict., c. 49.

2. Surgeons to Police.

City Police Surgeon, - - - £600
Chief Surgeon to the Metropolitan Police, £600

3. Certifying surgeons under the Factory and Workshops Act (41 & 42 Vict., c. 16), 1878, are appointed by the Inspectors of Factories, and the appointments may be revoked by the same officers. Every appointment and revocation may be annulled by a Secretary of State on appeal. The surgeon and occupier of the factory may settle the fees to be paid, but in the absence of any agreement the fees are fixed by the Act. The duties of the surgeon are to examine children and young persons about to be engaged in factories and workshops, and to certify as to their fitness for employment, and to investigate and report on accidents, and send in the report to the inspector within 24 hours of the occurrence of the accident. The scale of fees is that prescribed by the old Act.

4. The Medical Officer of the Privy Council is attached to the Local Government Board, but appointed by the Privy Council by whom he is removable at pleasure. The salary is fixed by the Commissioners of the Treasury, but must not exceed £1,500 per annum. The Medical Officer of the Privy Council or Local Government Board issues reports to the Board on sanitary matters. The reports of the former Medical Officer of the Privy Council, Mr. Simon, acquired a world-wide reputation for the author.

5. Medical Officers are appointed under the Contagious Diseases Act by the Admiralty or the Secretary of State for War, either as Visiting Surgeons or Inspectors of Hospitals at places to which the Acts extend.

6. Medical Visitors of Lunatics are appointed by the Lord Chancellor. Two Visitors are appointed from time to time. They must be physicians, and are debarred from private practice. The salary is £1,500 per annum. Travelling and incidental expenses are allowed, and a superannuation allowance may be awarded by the Lord Chancellor to any Visitor after twenty years' service who is sixty years of age, or disabled by permanent infirmity.

7. Medical Inspectors are appointed by different authorities. The Medical Inspectors of the Local Government Board receive

either £800 or £600 per annum. The Inspectors of Anatomy by the Anatomy Act are to receive not more than £100 a-year, but the Home Office grants an allowance for office expenses. Medical Inspectors of Merchant Ships are appointed and removed either by Local Marine Boards with the approval of the Board of Trade, or by the Board of Trade itself, and Medical Inspectors of Seamen may be appointed in like manner. A Medical Inspector of Passenger Ships is appointed by the Emigration Office at the port of clearance.

8. The Offices of Resident Medical Superintendent, or Medical Officer at the various Poor Law Infirmaries, Sick Asylums, District Lunatic Asylums, are worth variously from £400 to £600 a-year. Junior officers are appointed at lower salaries.

9. Coronerships are open to medical men. The following are some of the sums realised:—Middlesex, Eastern District, £2,057; Central District, £2,099; Western, £650. Surrey, East District, £1,603; Western District, £1,603.

## MEDICAL SOCIETIES.

The voluntary associations of medical men are divisible into—1. The Scientific Societies; 2. The Benevolent Societies; and 3. The Medico-Political Associations. In London the Scientific Societies, exclusively medical, are—the Medico-Chirurgical Society, or, to give it the full title, the Royal Medical and Chirurgical Society, founded in 1805 and chartered in 1834; the Pathological Society, established in 1846; the Clinical Society, established in 1867; the Obstetrical Society, instituted in 1858; the Medical Society, the oldest in London, instituted in 1773; the Hunterian Society, instituted in 1810; the Harveian Society, instituted in 1831; the Islington Medical Society, established in 1850; the Medico-Psychological Association, established in 1841; the Epidemiological Society, established in 1850; the New Sydenham Society, instituted in 1858; the North London Medical Society, established in 1875; the Odontological Society of Great Britain, instituted in 1856; the Association of Surgeons practising Dental Surgery, established 1876; the Society of Medical Officers of Health, instituted in 1856; the West Kent Medico-Chirurgical Society, and Societies of Medical Students connected with different Hospitals, such as the Guy's Physical Society, the Abernethian Society, at St. Bartholomew's Hospital; the Charing-cross Hospital

Medical Society, the London Hospital Medical Society, the St. Mary's Hospital Medical Society, the St. Thomas's Hospital Medical and Physical Society.

The leading Scientific Societies publish annually volumes of Transactions, which possess permanent value. Their organisation and the conduct of business are well arranged, and their labours greatly conduce to the advancement of medical science and art. All the societies do good work in their respective spheres of action which do not call for any special description. The New Sydenham Society differs from the other societies in being a society exclusively for the publication of medical works, British and foreign.

In the provinces there are numerous societies—The Association of Certifying Medical Officers of Great Britain and Ireland, established in 1868; the Bath Pathological Society, established in 1864; the Birmingham and Midland Association of Medical Officers of Health; the Birmingham Medical Institute, established in 1874; the Midland Medical Society, meeting at Birmingham, and established in 1852; the Bolton Medical Society, established 1864; the Bournemouth Medical Society, established in 1875; the Bradford Medico-Chirurgical Society, established in 1863; the Brighton and Sussex Medico-Chirurgical Society, established in 1847; the Bristol Medico-Chirurgical Society, established in 1874; the East Kent and Canterbury Medical Society, established in 1849, and meeting in Canterbury; the Cardiff Medical Society, established in 1870; the Colchester Medical Society, established in 1774; the Devon and Exeter Medico-Chirurgical Society, established in 1871; the Gloucestershire Medical and Surgical Association, established 1840; the East Sussex Medico-Chirurgical Society, established in 1851, and meeting at Hastings; the Hertfordshire Medical Association, established in 1858; the Isle of Wight Medico-Chirurgical Society, established in 1868; the Jersey Medical Society, established in 1874; the Leeds and West Riding Medico-Chirurgical Society, established in 1872; the Leicester Medical Society; the Lincoln Medical Society, established in 1863; the Liverpool Medical Institution, established in 1837; the Liverpool Northern Medical Society, established in 1868; the Manchester Medical Society, founded in 1834; the Northern Counties Association of Medical Officers of Health, instituted in 1875; the Northumberland and Durham Medical Association, established in 1873; the Northumberland and Durham Medical Society, Newcastle-on-Tyne, established in 1848; the

North Western Association of Medical Officers of Health, established 1875; the Norwich Medico-Chirurgical Society, established 1867; the Nottingham Medico-Chirurgical Society; the Oxford Medico-Chirurgical Society, established 1836; the Plymouth Medical Society, established 1794; the Preston Medical Society, established 1869; the Reading Pathological Society, established 1841; the Salisbury Medical Society, instituted 1868; the Sheffield Medico-Chirurgical Society, founded in 1869; the Southampton Medical Society, established 1852; the South Durham and Cleveland Medical Society, established 1873; the South Hants Medico-Chirurgical Society, established 1860; the South Wales and Monmouthshire Society of Medical Officers of Health; the Sunderland Medical Society, established 1814; the Swansea Medical Society, established 1876; the Tunbridge Wells Medical and Surgical Society, founded 1875; the West Dorset Medical Association, established 1867; the West Herts Medical Society, established 1849; the Wigan Medical Society, established 1874; the Worcestershire Medical Society, established 1866; the York Medical Society, established 1832; and the Yorkshire Association of Medical Officers of Health, established 1875.

In Scotland the scientific societies are—the Aberdeen Medico-Chirurgical Society, instituted in 1789; the Buchan Medical Society, established 1862; the Clackmannan and Kinrosshire Medical Association, established in 1837; the Edinburgh Harveian Society, established in 1782; the Edinburgh Medical Missionary Society, established in 1841; the Edinburgh Medico-Chirurgical Society, instituted 1821; the Edinburgh Obstetrical Society, instituted 1840; the Edinburgh Royal Medical Society, established 1737; the Forfarshire Medical Association; the Garloch and Northern Medical Association; the Glasgow Faculty of Medicine, 1824; the Glasgow Medico-Chirurgical Society, 1814; the Glasgow Southern Medical Society, 1844; the Greenock Medical Society, 1865; the North of Scotland Medical Association, 1865; and the Scottish Western and Midland Association, established 1872.

In Ireland the scientific societies exclusively medical are—the County and City of Cork Medico-Chirurgical and Pathological Society, instituted, 1841; the Medical Society of the College of Physicians, Ireland, originally instituted in 1816, and revived in 1864; the Dublin Obstetrical Society, instituted in 1838; the Dublin Pathological Society, instituted in 1838; the Surgical

Society of Ireland, established in 1831, by the Royal College of Surgeons of Ireland ; the Louth, Meath, and Drogheda Medical Society, established 1873; and the Ulster Medical Society, established in 1862.

All the foregoing medical societies are engaged in voluntary efforts to add to the stock of medical and surgical knowledge, to discover the causes and trace the effects and sequences of diseases, to improve the methods of treatment, and diminish the number of incurable affections.

The Benevolent Societies are the following—In London there are—1. The British Medical Benevolent Fund, instituted in 1836, to afford immediate pecuniary relief to distressed qualified members of the profession, their widows and orphans, and to grant annuities to the aged or disabled. In 1878, £1,379 were granted for the relief of urgent distress to 139 applicants, who had 217 children dependent upon them, and £712 were distributed among 37 annuitants. The society has aided in bringing up orphans and placing them in situations, given timely relief to struggling widows and their daughters, by which they have tided over temporary difficulties which would otherwise have overwhelmed them, and has in many instances enabled medical men, reduced by poverty, misfortune, or illness, to resume practice and support their families. The applicants have not the trouble or expense of a canvas, or the pain attending publicity. Relief is given as promptly as possible, and annuitants are admitted on their merits only.

2. The Society for the Relief of Widows and Orphans of Medical Men, founded in 1788, with the object of establishing a brotherhood for relieving, *half-yearly*, those widows and orphans of its deceased members who might need assistance. It combines the advantages of a provident with those of a benevolent society. The members pay a subscription of two guineas a year, which is in the nature of an insurance subscription, protecting their families from destitution in the event of the necessity for assistance arising, and at the same time is a benevolent subscription which is destined for the relief of others left in indigent circumstances if the member's family are spared the misfortune of having to seek the aid of the society. The benefits of the society are only extended to the indigent. In 1877, £2,949 were distributed among 60 widows and 13 orphans. The last report states that in the 90 years of its existence the society has distributed an aggregate sum of £98,307, paid in

half-yearly sums ; 194 widows and 275 children of members (comprised in 202 families relieved) have been placed in comfort, and many of the recipients were in a state of absolute poverty when rescued by the society.

The society is not supported as it ought to be. All legally qualified members of the profession, residing within the county of Middlesex, or within the London Postal District, are eligible for proposal. but the number of members is under 400. In 1878 there were 385. Fortunately the society does not wholly depend on annual subscriptions—members and others often assisting it with legacies. The largest legacy has been one from the late Thomas Copeland, Esq., a member of the society, who bequeathed the munificent sum of £5,000, duty free. The legacy now forms a fund called the Copeland Fund.

3. In London are the offices of the Royal Medical and Benevolent College, Epsom, established in 1855, through the exertions of Mr. Propert, in order to provide an asylum and pensions for duly qualified medical men, and the widows of medical men in reduced circumstances, and a school for the sons of duly qualified medical men. The asylum contains 24 residents, called pensioners, each of whom is provided with three furnished rooms, a pension of £21 a year, and an allowance for coals ; 26 pensioners are provided with annuities of £21, without residence. Pensioners must be sixty years of age at the time of admission, and their yearly income must not exceed £60. They are elected at first to annuities only, succeeding to residence in turn, as vacancies arise, and provided that they are rendered eligible by their circumstances. The school contains 215 resident pupils, the sons of medical men. Fifty are foundation scholars—educated, boarded, clothed, and maintained at the expense of the institution. There are a few exhibitioners who pay reduced rates; the remainder pay £48 a year each if under 14, and £51 a year if 14 and upwards, for an education of the highest class—board, washing, use of books, &c. The pensioners and foundation scholars are elected by the governors, voting by ballot. Governors pay one guinea annually, or ten guineas in one sum or two sums, and collectors of twenty guineas are governors of the College.

In the Provinces there are—1. The Birmingham Medical Benevolent Society, established in 1821. Since the foundation of the society £8,247 11s. have been distributed in half-yearly grants,

most of the recipients being widows and families, and in ten instances practitioners disabled by disease. In one instance in which 14 guineas had been paid in subscriptions the sum of £415 have been granted; and in another, in which the same sum had been paid, £1,125—the recipient, a widow, still enjoying the bounty of the society. In other cases, sums varying from £80 to £200 have been granted. 2. The Essex and Herts Medical Benevolent Society, established in 1786. 3. The Kent Benevolent Medical Society, established in 1787 for the relief of the widows and orphans of medical men, members thereof, and of the members themselves under particular circumstances. 4. Lincolnshire Medical Benevolent Society, established in 1804 for the benefit of medical men and their widows and orphans. 5. Surrey Medical Benevolent Society, established 1812. 6. Sussex Medical Friendly Society, established 1857 for the relief of members and their families, widows and orphans. 7. West Riding of Yorkshire Medical Charitable Society.

In Scotland there does not appear to be any benevolent society.

In Ireland there is the Royal Medical Benevolent Fund Society, with its Belfast branch. The society was founded in 1842 by William Kingsley, M.D. The objects of the society are to relieve medical men under severe distress occasioned by sickness, accident, or any other calamity. The claims of contributors are to have a preference so far as possible, but contributions to the fund give no right to relief, the fund being one of pure charity. Each case is judged according to urgency. Widows and orphans may be assisted under circumstances of peculiar emergency, but it is not the object of the fund to relieve medical men from the necessity of providing for their families by ordinary life assurances or such other means as prudence dictates.

The Medico-Political Associations, or associations for the advancement of the interests of the profession, socially and politically, internally and externally, are—

(1) The Medical Defence Association, founded 1875. Its objects are to suppress the practice of medicine and surgery by persons not legally qualified, and the publication of indecent so-called medical works and advertisements relating thereto; to endeavour to procure the amendment of the laws relating to the sale of quack medicines; to promote out-patient hospital reform, provident dispensaries, and clubs, and prevent the abuse of medical charities; to consider any

matters of an ethico-medical character, and to procure the amendment of the Medical and other Acts of a kindred nature, including that relating to the registration of deaths, and to adopt such means as shall give to medicine a larger basis of representation in the House of Commons. Branches of the Association have been formed at Norwich for the Eastern Counties, Newcastle-on-Tyne for the North of England, Cinderford for the Forest of Dean, Shrewsbury for Shropshire and Mid-Wales, Redruth for West Cornwall, Sunderland, Nottingham, and Accrington.

(2) The Medical Alliance Association, formerly the East London Medical Defence Association, has for its chief object the suppression of unqualified practice.

(3) The Poor Law Medical Officers' Association, founded in 1868 by the union of the Poor Law Medical Reform Association and the Metropolitan Poor Law Medical Officers' Association. The objects of the Association are to obtain life appointments and adequate remuneration for all Poor Law medical officers in England and Wales, to assist Poor Law medical officers in difficulties with Boards of Guardians, to remedy all defects in the Poor Law medical service, and improve the distribution of medical relief to the poor. The number of members is between 800 and 900. The Association has already been instrumental in obtaining superannuation, and has rendered much service both to individual members and to the cause of Poor Law medical and sanitary reform.

(4) The Medical Teachers' Association was founded in 1867 for the purpose of improving medical education. It consisted of the teachers of the various schools. Nine out of 11 schools joined the society, Guy's and Bartholomew's being the exceptions. For a few years it was very flourishing, and issued an educational report which was founded on a basis drawn up by Mr. Simon. This report contributed to the growth of opinion in favour of improved education both in the Medical Council and the College of Surgeons. The society exercised considerable influence through the addresses of its presidents, the discussions at its meetings, and its published recommendations. It is at present in a dormant state—the organisation existing ready for use when occasion calls loudly enough for activity.

(5) The British Dental Association, already mentioned.

(6) The St. Andrew's Medical Graduates' Association.

(7) Foreign Graduates' Association, established in 1876.

(8) The Manchester Medico-Ethical Association.

(9) York Medico-Ethical Association, established 1818.

(10) The British Medical Association, and the branches of the same.

In Ireland there are—1. The County and City of Cork Medical Protective Association. The objects of the Association are to promote good feeling among the members of the profession at large, to watch over its interests, to remonstrate with public bodies in case of medical officers of public institutions being aggrieved, to petition the Legislature in case Bills should be brought into Parliament affecting the rights and privileges of the medical profession, and, in the event of misunderstanding, to mediate between contending parties when called on by them to do so. 2. The Irish Medical Association, founded in 1839.

The British Medical Association is a great association. It is both a scientific association, a benevolent association, and an ethico-medico-political association. It embraces at present 7,500 members of the profession, paying a subscription of a guinea each annually. It publishes a journal. It holds annual meetings of four days' duration in different towns in England, Scotland, and Ireland. The main Association has numerous branches in the metropolis and provinces constantly at work, and appoints committees on various matters of public and professional interest to promote amendment of the law by the issue of reports and the organisation of deputations to Ministers. An Association, which numbers in its ranks one-third of the registered members of the profession in the United Kingdom, deserves more than a passing notice. The Association was founded in 1832 by Sir Charles Hastings, M.D., of Worcester. It was at first designed to form a centre of union for medical practitioners in the counties, and received the name of the Provincial Medical and Surgical Association. In his inaugural address Sir Charles Hastings stated the objects of the Association to be to remove the disadvantages under which the provincial medical practitioners laboured, owing to their isolation and want of co-operation; to render their exertions more effective for the promotion of knowledge by combination, and to maintain the honour and respectability of the profession by the establishment of free intercourse and friendly feelings among its members. To secure these objects it was arranged that annual meetings of the Association should be held in different localities, and that branches should be formed in different counties

and places. Members were encouraged to inquire into the spread of epidemic diseases in relation to the circumstances of each locality, to collect useful professional information on topics practical and speculative, to pay attention to hygiene and sanitary subjects, to promote the settlement of medico-legal questions, to investigate medical topography, and devote themselves to scientific and statistical research. In 1832, 313 members joined the Association; in 1843 the members had increased to 1,300; in 1853, to 1,850; in 1863 to 2,200. In 1866, when Mr. Ernest Hart succeeded to the editorship of the journal, the number was about 2,500; in 1873 there were 5,500 members, and in 1878 the number had risen to 7,536, and "the cry is still 'They come.'" In 1848 the annual income was about £1,400; in 1877–78 it was £11,500; on the 1st January, 1878, the association had a cash balance of £2,193 and £3,000 Consols. The expenses of editing, printing, and publishing *The British Medical Journal* amounted in 1877 to between £6,000 and £7,000. Grants were made for scientific investigation to the amount of £400. The chief source of revenue, in addition to the subscriptions, was insertion of advertisements in the journal, which realised £3,854 6s. 2d. Sundry sales of the journal amounted to £399 11s. 2d., and interest to £69 9s. 7d. £1,500 were expended in the purchase of Consols. The editor receives £500, and the sub-editor £150 a year, exclusive of literary contributions. The number of branches of the Association is between 30 and 40, two being in the North of Scotland; one at Glasgow; one at Edinburgh; one for the Border Counties, and three in Ireland—one in Dublin, one in Belfast, and one in Cork. The Journal of the Association—*The British Medical Journal*—had its origin in volumes of Transactions, which contained the papers and addresses delivered at the annual meetings of the Association. Nineteen volumes of Transactions were published in twenty-one years. In 1840 *The Provincial Medical and Surgical Journal* was started by Dr. Hennis Green, of London, without official connexion with the Association, but for the purpose of working on parallel lines. Dr. Streeten, a member of the Worcester Council of the Association then became co-editor at Dr. Green's request, and it was arranged that each member of the Association should receive a copy of the Journal as well as the Transactions. In 1844 the Journal became the official organ of the Association, and was at first published in London every week, being under the control of a committee. It was not very

successful, and was transferred to Worcester, where it was issued once a fortnight. In 1853 the Journal was once more taken to London and published as the *Association Medical Journal*, under the editorship of Dr. John Rose Cormack. The Association meanwhile had been extended to London, Scotland, and Ireland. In 1856 the present title was assumed. In 1857 Dr. Andrew Wynter was appointed editor, and in 1861 Dr. Markham. In 1867 Mr. Hart was appointed. Mr. Hart has conducted the Journal with great ability and success up to the present time, an interregnum of a year having occurred in 1869–70, when the Protean abilities of Mr. Jonathan Hutchinson were enlisted for the purpose of filling a temporary vacuum.

In 1874 the Association was incorporated under the Board of Trade, in accordance with the "Companies Act of 1867." The condition on which the license is granted to the Association by the Board of Trade, in pursuance of section 23 of the Companies Act, 1867, is expressed in the fourth paragraph of the Memorandum of Agreement. "The income and property of the Association, from whatever source derived, shall be applied solely towards the promotion of the objects of the Association, as set forth in the Memorandum of Association, and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend, or bonus, or otherwise, by way of profit to the persons who at any time are, or have been, members of the Association, or to any person claiming through any of them. Provided that nothing herein shall prevent the payment in good faith of remuneration to any officers or servants of the Association, or other person, in return for any services actually rendered to the Association." If the Association act in contravention of the fourth paragraph of the Memorandum, or of any further conditions which the Board of Trade has the power to impose, the liability of every Director, hereinafter called Member of Committee of Council, becomes unlimited, and the liability of every member who has received any such dividend or bonus, or other profit aforesaid, likewise becomes unlimited. "The objects for which the Association is established are the promotion of medical and the allied sciences, and the maintenance of the honour and interests of the medical profession by the aid of all or any of the following:—

"(*a*) Periodical meetings of the members of the Association, and of the Medical Profession generally in different parts of the country.

"(*b*) By the publication of such information as may be thought desirable, in the form of a periodical journal, which shall be the journal of the Association.

"(*c*) By the occasional publication of transactions or other papers.

"(*d*) By the grant of sums of money out of the funds of the Association for the promotion of the medical and allied sciences in such manner as may from time to time be determined on."

The Association is governed by a body of directors, called the Committee of Council. This Committee or court of directors is composed of twenty members, who are elected by the Council, and the following *ex-officio* members—the president, the president-elect, the president of Council, the vice-presidents of the Association (each retiring president and treasurer and each retiring president of Council are eligible for election as a vice-president for life, provided that they continue members of the Association), the treasurer and the honorary secretary for the time being of each branch. The Committee of Council meets not less than four times a year. The five members who have attended the fewest meetings during the preceding twelve months retire at the annual meeting, and are ineligible for election for the ensuing year. The Committee of Council nominates twenty members to be on the Committee of Council for the ensuing year. This nomination takes place three weeks before the annual meeting, and any two members of the Council may nominate one or more members on giving notice to the secretary a week before the annual meeting. The privilege is not much exercised, and virtually the Committee of Council is a self-nominated body. The Committee of Council has all the power and patronage. The editor of the journal and the secretary are elected by the Committee. The nomination of readers of addresses and presidents, the determination of the division of sections and the appointment of their officers, and action in all emergencies, are in the hands of the Committee. The Council consists of the president, the president-elect, the vice-presidents, the president of the Council, the treasurer, and the readers of addresses, and presidents of sections at the annual general meetings of the Association for the current year and the last preceding year, together with such other members as are to be elected annually by the branches, in accordance with the by-law in that behalf. Each branch elects one member of Council for every twenty members of the branch, together with the honorary secretary. The Council meets at the

time and place of the annual meeting, and at other times and places, if summoned by the president of the Council or by the Committee of Council, or by a requisition signed by not less than twenty members of the Council. Practically the Council only meets at the time and place of the annual meeting. Twenty-five members form a quorum. The Council prepares a report of the general state and proceedings of the Association for the past year to be presented at the annual meeting, proposes the place of meeting for the next year, nominates the president-elect, and elects the twenty elective members of the Committee of Council. The elected members of Council hold office for one year.

At the annual meetings addresses are delivered by retiring presidents, presidents-elect on assuming office, presidents of sections, and by the selected readers of addresses on medicine, surgery, and obstetric or forensic medicine. The scientific and political discussions take place in the sections. There are a section of medicine, a section of surgery, a section of obstetric medicine, a section of public health, and sometimes a section of physiology, in which papers of not more than twenty minutes' duration are read and discussed. The business of the Association is transacted at the general meetings, of which four are usually held at the annual meeting. Committees are appointed at the annual meeting to carry out the wishes of the Association and advance professional interests. The committees which are regularly appointed are the Medical Reform Committee, the Parliamentary Bills Committee, and the Scientific Grants Committee.

The Medical Reform Committee was appointed in 1852. The question of medical reform had long occupied the attention of the members of the Association; indeed from the date of the formation of the Association its influence had been exerted to excite public interest in the subject. Legislation was often attempted in vain, and amongst others by Sir James Graham, Mr. Hawes, and Mr. Wakley. In 1853 an influential deputation waited on Lord Palmerston to ask his support for a Bill drafted by the Association. In 1854, £200 were voted by the Association to the Reform Committee. In 1855 a deputation to Sir George Grey failed to elicit his support. The Bill of the Association was brought in by Mr. Headlam in 1857, and the second reading was carried by a majority of 225 against 78. This unexpected success induced the Government to undertake legislation, and in the following year the Act of 1858 was

passed. The Association and the Reform Committee always upheld—1. Uniformity of qualification. 2. Reciprocity of practice throughout the United Kingdom. 3. Registration of the qualified practitioner. 4. The adoption of the representative principle in the government of the profession. Reciprocity and registration have been secured by the Medical Act of 1858, for which the profession were mainly indebted to the exertions of the Association, then numbering less than 2,000 members of the profession. Ever since the Reform Committee has been working for uniformity of examination and equality of fees by the establishment of compulsory conjoint boards, and for direct representation of the profession in the Council. Deputations to Ministers and the General Medical Council, circulars to members of the Association, articles in the journals, reports of the Reform Committee, votes at the general meetings of the Association, petitions to Parliament, and the promotion of a Parliamentary Bill drafted for the Association, have testified to the earnestness of the Committee and of the Association.

The Parliamentary Bills Committee was appointed in 1863, and has rendered most valuable service by considering all bills introduced into Parliament in anywise affecting the interests of the profession or touching the public health. Amendments suggested by the Committee are often adopted by Government. The Committee has also watched over the interests of the medical departments of the army and navy, the militia surgeons, and medical men engaged in the mercantile marine, and deputations have waited on Government to unfold the grievances of the public medical services. Among the bills considered have been the various Medical Act Amendment Bills, the Vivisection Bill, and the Public Health Bills of all kinds.

The Scientific Grants Committee was appointed in 1874 to distribute the £300 annually voted by the Association to forward original research.

Among other subjects which have been referred to committees have been the registration of disease, legislation for habitual drunkards, out-patient reform, and sanitary reform.

Some prizes and rewards are offered by the Association—viz., 1. The Hastings prize medal. 2. A biennial or triennial prize for the encouragement of original researches into the origin, spread, and prevention of epidemic diseases, or for some other subject selected

by the Committee of Council, consisting of the interest of £400 given by Dr. Patrick Stewart in 1875 from the sum raised by the Association for a memorial of his services. 3. A triennial prize for the best essay on the scientific and practical value of the improvements which have taken place in ophthalmic medicine and surgery during the previous three years—the prize consisting of the interest of £500 given by Mr. Middlemore, of Birmingham; and 4. A medal for "distinguished merit" awarded to any member of the profession for heroic conduct or special services to the Association.

The management of the British Medical Benevolent Fund has been in the hands of the Association since 1835.

Notwithstanding the apparent liberality and democratic aspect of the constitution of the Association, that constitution is a very unrepresentative and a very close constitution. Popular election is only permitted for the formation of the Council and not for the formation of the whole Council, but for only a portion of the Council. But even if the Council were elected by the whole constituency instead of being as it is, partly official and partly elective, and elective not by the members generally but by Branches which do not include many of the members, the provision would be inoperative, for the Council has no power whatever. Possibly by dexterous organisation the Council might put into the Committee of Council a few independent members, but it is generally satisfied with registering the decrees and nominations of the Committee of Council. Committee of Council the Committee is not. It is the Committee of the Committee of Council, and consists of official persons and self-nominated and self-elected persons. Hence the management of the Association is constantly kept in the hands of a few metropolitan and provincial men. The introduction of a truly representative constitution is a matter of extreme difficulty. The Association wanders about from place to place, and even if members at one meeting should be convinced that changes are necessary, it is very unlikely that they would be able to attend the next meeting for the purpose of endeavouring to effect the desired alterations. The few who came to the meeting for the purpose would be put down by official persons, by plastic and inexperienced secretaries of Branches following blindly the lead of official persons, and by the general practitioners at the place of meeting who were entertaining official persons. A grievance in London is not a grievance in Birmingham, and a man

who agitates for improvement and obtains the support of metropolitan members may be quashed by a simple and ingenious process of the Committee of Council summoning a meeting at Birmingham which his metropolitan supporters may not be able to attend. It is certainly strange that an Association which has fought so perseveringly for the representative principle to be applied to the General Medical Council should be so indifferent to the introduction of the representative principle in the formation of its body of directors. It is strange that the "official persons" who have been backing the movement for medical reform should dislike the application of the same principles to the Association of which they are prominent members. At the present time the control of the journal, the control of finance, the control of the action of the Association itself, is as much out of the hands of the 7,500 members of the Association as if the Committee of Council were appointed by the Crown. The Council is a mere puppet dressed up in representative clothing to look respectable, but set in motion by the Committee of Council to give a popular appearance to the Committee. The sole function of a member of Council is to enter a room in some far distant portion of the United Kingdom, and to deposit a voting-paper, which he is powerless to alter, in a hat or ballot-box. He then retires till the next annual meeting, when some one else perhaps has been chosen in his place to go through the same ludicrous performance. The fact that the votes of members of the Association have been collected with the greatest facility on some topics of general importance shows that there would be no difficulty in the introduction of popular election if it were deemed desirable on general grounds. We are not advocating the subversion of the constitution of the Association and the substitution of universal suffrage, but are merely showing that the present constitution requires some modification because of its close, narrow, stereotyped, inelastic, and unrepresentative character.

We began by saying that the British Medical Association is a great Association, and there is every prospect of its becoming still more important. In the absence of any organisation of the profession by the Corporations, it affords the best and most powerful agency for upholding professional interests, and securing justice to our medical brethren in the public service. Its scientific addresses, papers, discussions and reports, and the researches of the

distinguished men who receive scientific grants, are very valuable contributions to the medical, surgical, and scientific knowledge of the time, and often aid in a marked degree in effecting practical improvements. The labours of its committees have been attended with no mean success. Its general meetings bring members of the profession in different parts of the country together who would not otherwise become acquainted with each other, and the interchange of views tends to create and guide professional opinion, and indirectly to influence the views of the public at large.

## STATE OF THE HOSPITALS AND SCHOOLS OF MEDICINE, SURGERY, AND PHARMACY.

The number of Medical Schools in the three divisions of the United Kingdom is 35. In England there are 20, in Scotland 6, and in Ireland 9. The Medical Schools in England are divided into the Metropolitan and the Provincial. The Metropolitan Schools are 12 in number:—

1. St. Bartholomew's Hospital and Medical College.
2. Guy's Hospital Medical School.
3. University College and Hospital.
4. St. Thomas's Hospital Medical School.
5. The London Hospital and Medical College.
6. King's College and Hospital.
7. St. George's Hospital Medical School.
8. The Middlesex Hospital and Medical College.
9. St. Mary's Hospital Medical School.
10. Charing Cross Hospital and School of Medicine.
11. Westminster Hospital Medical School.

The foregoing schools admit male students only. There is one school of medicine for women. It has been "recognised" by the University of London, and is called—

12. The London School of Medicine for Women, 30 Henrietta-street, Brunswick-square, W.C., in association with the Royal Free Hospital, Gray's Inn Road.

The Provincial Medical Schools are 8 in number:—

1. The Queen's College, Birmingham, in connexion with the General and Queen's Hospitals.

2. The Owens' College (Manchester) Royal School of Medicine, in connexion with the Royal Infirmary.

3. The Liverpool Royal Infirmary School of Medicine.

4. The Leeds School of Medicine, in connexion with the Leeds Infirmary.

5. Sheffield School of Medicine, in connexion with the General Infirmary.

6. Bristol (Old Park) Medical School, in association with University College, Bristol, and in connexion with the Royal Infirmary and General Hospital.

7. Cambridge Medical School, in connexion with Addenbrooke's Hospital.

8. University of Durham College of Medicine, Newcastle-upon-Tyne, in connexion with the Newcastle Infirmary. There is not a complete Medical School at Oxford. The remnant is so small that the School has been called the "Lost Medical School at Oxford," some ancient medical endowments having been diverted from their original destinations. The Medical School at Cambridge is not quite complete, but is, in many respects, admirably appointed.

The Scottish Medical Schools are :—

1. The University of Edinburgh. The Faculty of Medicine is in connexion with the Royal Infirmary.

2. The University of Glasgow. The Faculty of Medicine is in connexion with the Royal Infirmary.

3. The University of Aberdeen. The Faculty of Medicine is in connexion with the Royal Infirmary.

The University of St. Andrew's cannot be described as possessing a Medical School.

4. The School of Medicine, Edinburgh.

5. Anderson's College, Glasgow.

6. Glasgow Royal Infirmary School of Medicine.

The Medical Schools in Ireland are 9 in number. In Dublin there are 6 :—

1. The School of Physic in the University of Dublin, in connexion with Sir Patrick Dun's Hospital.

2. The College of Surgeons Medical School, or School of Surgery, in connexion with the City of Dublin Hospital.

3. The Catholic University School, Cecilia-street.

4. Dr. Steevens' Hospital and Medical College.

5. The Carmichael School of Medicine, formerly called the Richmond Hospital School of Medicine.

6. The Ledwich School of Medicine.

The Hospitals in Dublin at which students at any of the foregoing Schools can take out Clinical Instruction are—the Adelaide Hospital, Peter-street; Jervis-street Hospital, Meath Hospital and County of Dublin Infirmary, Mater Misericordiæ Hospital, City of Dublin Hospital, the Coombe Lying-in Hospital, Dr. Steevens' Hospital, Mercer's Hospital, the Rotunda Hospitals, consisting of two distinct hospitals—the Lying-in Hospital, and the Auxiliary Hospital for Uterine and Ovarian Disease; St. Vincent's Hospital, and the Richmond (Surgical), Whitworth (Medical), and Hardwicke (Fever) Hospitals, Government Hospitals of the House of Industry.

There are some special schools, such as the Army Medical School at Netley, the two Dental Schools, viz.—the Medical School of the Dental Hospital, and the National Dental Hospital and College, and two private Medical Schools in London—the School of Anatomy, Physiology, and Surgery, conducted by Mr. Thomas Cooke, and the School of Medicine, Stamford-street. In Dublin, the Rotunda and Coombe Lying-in Hospitals are celebrated as Schools for Midwifery, and grant Midwifery Diplomas, of course incapable of registration.

In the Irish provinces there are the three medical schools which form integral parts of the three Queen's Colleges. 1. The Queen's College, Belfast, in connexion with the Belfast Royal Hospital and Lying-in Hospital. 2. The Queen's College, Cork, in connexion with the North and South Infirmaries and Lying-in Hospital; and 3. The Queen's College, Galway, in connexion with the County Infirmary and Town Hospital, which are in the immediate vicinity of the College.

It is not easy accurately to determine the total number of medical students engaged in learning their profession in the United Kingdom. In 1857 a writer in the *Encyclopædia Britannica* fixed the total at 3,000—1,400 in England, 1,000 in Scotland, and 600 in Ireland. Since that date the number has greatly increased. In 1877 the return from the English schools alone gave a total of 2,246—1,879 in the metropolis, and 367 in the provinces. In 1878 the total in London was estimated at 2,441. The following list will

indicate as nearly as possible the relative numbers of students at the several English schools:—

| Metropolitan Schools | New Entries, 1878 | | | 1877 New Students | Total all Years |
|---|---|---|---|---|---|
| | Full | Partial | Total New | | |
| St. Bartholomew's, | — | — | 145 | 149 | 394 |
| Guy's, | 102 | 13 | 115 | 112 | 338 |
| University, | — | — | 81 | 64 | 269 |
| St. Thomas's, | 59 | 26 | 85 | 52 | 187 |
| London, | 55 | 47 | 102 | 46 | 123 |
| King's, | 46 | 8 | 54 | 40 | 115 |
| St. George's, | 36 | 3 | 39 | 35 | 128 |
| Middlesex, | 33 | 14 | 47 | 35 | 112 |
| St. Mary's, | 20 | 6 | 26 | 26 | 102 |
| Charing-cross, | 33 | 5 | 38 | 28 | 82 |
| Westminster, | 14 | 8 | 22 | 9 | 29 |
| | | | 754 | 596 | 1,879 |
| Provincial Schools | | | | | |
| Birmingham, | — | — | 28 | — | 57 |
| Manchester, | — | — | 70 | 57 | 114 |
| Liverpool, | — | — | 30 | 18 | 50 |
| Leeds, | — | — | 26 | 37 | 69 |
| Sheffield, | — | — | — | — | 22 |
| Bristol, | — | — | — | — | 11 |
| Cambridge, | — | — | — | — | 28 |
| Newcastle (Durham), | — | — | 19 | 16 | 16 |

In Scotland the medical students at the University of Edinburgh alone number more than 1,000 (1,290 in 1878), including 250 to 300 fresh entries. In the University of Glasgow there were 492 students of medicine in the session 1877-78. We have not been able to ascertain the numbers at the other schools. Nor have we been successful in our inquiries in regard to Ireland. In Dublin there is a conclave formed of delegates from all the schools, for the purpose of apportioning subjects for dissection, according to the wants of each. This conclave, which is called the Anatomical Committee, receives from each school a return of the number of dissecting students and a fee of £1 1s. for each student, but it does not make public the respective numbers of entries. The Anatomical Inspector, however, for the Provinces of Leinster, Ulster, and Connaught, Mr. Daniel F. Brady, has obligingly informed us that the number

of dissecting pupils this session (15th Nov., '78) is *in toto*, 1,224. We have also ascertained that the number of new students who have joined the Carmichael School this year (1878-79) is 103.

According to the Medical Students' Register for 1879 the number of medical students who entered in 1878 was 881 in England, 500 in Scotland, and 353 in Ireland; but these numbers only show the extent to which the registration of medical students is encouraged or discouraged in each division of the kingdom.

Any one desiring to become a medical student for the purpose of entering the medical profession must pass a preliminary examination in general education. Ordained by the General Medical Council as essential subjects of examination are—the English language, including composition, punctuation, spelling, and grammatical construction; arithmetic, including vulgar and decimal fractions; algebra, including simple equations; geometry, or the first two books of Euclid, or the subjects thereof; Latin, including translation and grammar; and one of the following optional subjects—Greek, French, German, elementary mechanics of solids and fluids, meaning thereby mechanics, hydrostatics, pneumatics, and hydraulics. It will be seen that the knowledge of his mother tongue demanded of the student is not very formidable. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; to write a portion of an English author to dictation; to explain the grammatical construction of one or two sentences; to point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature; to give the derivation and definition of a few English words in common use are within the compass of any young gentleman fairly educated and moderately intelligent. Nor are these distinct accomplishments in English universally demanded at preliminaries, for it is "provided always that an examination may be accepted as satisfactory that secures on the part of the candidate passing it a sufficient grammatical knowledge of English"—a general proviso which leaves the door widely open for the exercise of the discretion or indiscretion of examining bodies. It will be observed that Greek, from which so many medical terms are derived, is placed among the optional subjects. In a rash moment the General Medical Council passed a resolution that Greek should be made compulsory after 1869—in a rash moment we say, because a year or two later it

stultified its decision, fearing that the dreadful ordeal of the preliminary might become too severe to allow an adequate number of medical students to pass through the portals of the profession. The standard of secondary education in grammar schools, especially in Scotland, had been described at the Council as too low to render it safe to make Greek compulsory. It will be observed further that the General Medical Council entertained the opinion that it is not necessary to make any modern language or physics compulsory, but that it considers Greek, French, German, and elementary mechanics of solids and fluids as each and all of the same importance to the medical student and practitioner, and of the same educational value. This liberality in regard to the subjects of study is extended to the educational bodies whose examinations are recognised as equivalents for the preliminary.

No one can dispute the propriety of accepting degrees in arts conferred after examination at English, colonial, or foreign Universities of repute; but a list of some fifty additional examinations, cheerfully stamped with the imprimatur of the Council, is a little trying to the patience of those who ardently long for uniformity and an elevation of the standard of general culture.

A word may here be given to the selection of an English preliminary examination. The student who does not aim higher than the acquisition of the ordinary qualifications to practise medicine and surgery—the membership of the College of Surgeons of England and the licence of the English College of Physicians, or the licence of the Apothecaries' Society of England, need not aspire to any more difficult preliminary examination than those superintended by the College of Physicians and the Apothecaries' Hall. But if there is any ambition to possess the higher diplomas and degrees—the Fellowship of the College of Surgeons of England, the Membership of the College of Physicians of London, the degrees of the University of London—a more stringent Arts examination must be undergone. The possession of a University degree—a Bachelorship or Mastership of Arts—is a universal passport, and must be recommended to those who aspire to the highest position in the profession. Those who, from accidental circumstances, are cut off from the ancient seats of learning—Oxford and Cambridge—will find a sure refuge at the University of London. For excellence and completeness, as an examination well suited to young men fresh from the better schools—opening out both the University degrees and the higher diplomas of the

Colleges, for it is accepted by the College of Surgeons of England for the Fellowship—the matriculation examination at the University of London may be specially recommended. It includes the English language, English history, arithmetic, algebra, Euclid, natural philosophy, and chemistry, Latin, and any two of the following languages—Greek, French, German, Sanscrit, or Arabic. If it cannot be taken as a model of what the ordinary professional preliminary should be in the future, its general merits are unimpeachable. In Scotland the student has open to him the preliminaries of the College of Physicians of Edinburgh, the College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, or the preliminary examination for graduation in Medicine and Surgery at the Universities. Few aspire to a degree in Arts.

In Ireland the preliminaries for the rank and file are those of the Colleges of Physicians and Surgeons, but a large proportion of Irish medical students become connected with the Universities—viz., the University of Dublin and the Queen's University, where medical and surgical degrees may be obtained very cheaply. To take a medical degree at the Dublin University necessitates possession of a degree in Arts, but candidates for the medical degrees are not obliged to pass for the Arts degree before the commencement of their professional studies. The degree of Bachelor of Medicine may be obtained at the same commencement as that at which the degree of B.A. is received, provided the requisite medical education shall have been completed. The course of Arts commences with the public entrance examination, which is recognised by the General Medical Council as a preliminary examination for medical students. At the Queen's University candidates for the degrees must pass the examination at one of the Queen's Colleges. The names of the students who pass are placed on the Roll of the Universities, and thereby the students become matriculated students. Attendance on lectures on a modern language, and inclusion of the subject either in the first or in the second University examinations in Medicine are subsequently required. The matriculation examination may be passed at any time before the final or degree examination.

It must be particularly mentioned that the College of Surgeons of Ireland stands alone among the Licensing Corporations in requiring Greek as a compulsory subject at the preliminary examination. This honourable distinction greatly enhances the value of the qualification conferred by the College.

Oxford and Dublin are the only Universities which make the possession of the B.A. degree essential for the acquirement of any medical degrees. The Scottish Universities grant the M.B. and C.M. on the strength of the preliminary examination for graduation. For the M.D., however, either the B.A. degree or a further examination in Greek, logic, moral philosophy, and one of several optional subjects is demanded. Cambridge is content with the previous examination, the Queen's University with the matriculation and a modern language, and Durham with the Arts examination for graduation in Medicine—a more facile ordeal than that for the B.A. degree. The University of London is not satisfied with the matriculation for the M.D. and M.S. degrees, but demands logic and moral philosophy. For the M.B. and M.S. matriculation suffices.

As soon as the student has passed a recognised preliminary examination, the next step is to decide upon the mode of commencing professional study, for even in this respect latitude is allowed. The Council considers it a matter of indifference whether the student adopts at the outset the analytical or synthetical method of education. Recognition is accordingly afforded to commencement of study :—1. By attendance on the practice of a recognised hospital or public institution. 2. By instruction received as the pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council ; and 3. By attendance on lectures on anatomy, physiology, or chemistry by lecturers recognised by the medical authorities. In other words, the medical student is permitted either to study diseases before he knows one jot or tittle of the human body, which is the subject of them, or to learn the structure and functions of the human body first and its derangements afterwards. It is left to his sweet will and discretion to put the cart before the horse or the horse before the cart. The great patrons of the mode of commencing medical studies by attendance at hospitals, or as pupils or apprentices to registered practitioners, are the English College of Surgeons and the Irish Apothecaries' Hall. The ordinary mode of commencing medical study is by entering at one of the thirty-five Medical Schools. The exceptional modes sanctioned in the regulations of some of the Corporations, and not any longer contravened by the General Medical Council, are the relics of the old system of apprenticeship,

to the abolition of which some still look back with regret. In former years, to serve a five years' apprenticeship was a necessary condition for becoming an apothecary by obtaining the license of the London Society of Apothecaries. This apprenticeship was completed at one time prior to entrance at a medical school, but latterly the Society relaxed the regulation and permitted the apprentice to include in the five years the two and a-half years of the curriculum at a medical school. Thus the apprenticeship often became more nominal than real. The practitioner to whom the student was apprenticed took his twenty-five or thirty guinea fee, and the student paid casual visits to his master's surgery in accordance with his own convenience and his own views of the advantages resulting therefrom. In the olden time the apprentice acted as assistant, living under his master's roof, making up the medicines, keeping the books, performing venesection, vaccination, and tooth-drawing, attending cases of midwifery, and sometimes cleaning his own boots, lighting the fire, and sweeping the surgery. There were decided advantages accruing from this system, which have been lost in the changes of modern times. The apprentice came up to the medical school thoroughly acquainted with drugs, with the different preparations contained in the Pharmacopœia, the mode of making decoctions, infusions, pills, and powders, and neatly dispensing prescriptions. He could dress a simple wound, draw teeth, vaccinate, and bleed by venesection, cupping, or the application of leeches. He knew how to keep the books required by the general practitioner, and he had gained some degree of tact in the management of patients. He could preside with confidence over a normal case of midwifery. In his leisure time he had done a little reading at anatomy, physiology, and even medicine and surgery, and, having been assisted perhaps by his master, had acquired a fair knowledge of the bones, and an acquaintance with some of the commoner medical terms and with the leading signs of ordinary diseases. For instance, he not only knew what was meant by a case of pneumonia, but could mention its chief symptoms, and describe the treatment which his master was in the habit of using. He would never poison a patient by ordering too large a dose, or write a prescription containing incompatible ingredients, for he had had impressed upon him the doses of the different drugs and preparations used in medicine, and could enumerate the ingredients of compound decoctions, infusions, tinctures, powders, and pills. These, it must

be confessed, were no mean accomplishments, and they served two or three most useful purposes. In the first place, the acquirement of professional knowledge was rendered very much easier as the foundation had been laid upon which the superstructure was to be reared. The apprentice could at once enter the hospital out-patient department, ward, or receiving room, and be ready to profit by what he saw and heard. When his hospital curriculum was completed he had no difficulty in obtaining the situation of assistant to a general practitioner, because his experience as an apprentice had rendered him a valuable acquisition. He was not above his work, or unequal to the administrative duties required of him in the surgery, as the most distinguished graduate of the first University in the kingdom who had never served an apprenticeship would have been. Lastly, if he chose to settle at once in private practice, he could commence as a master in the general management of a practice which included private patients, clubs, a union appointment, keeping books, and dispensing. In a less degree the modified system of apprenticeship sanctioned by the Apothecaries' Society in the later period prior to the amendment of the Apothecaries Act produced similar advantages. There was, however, as there always is, a reverse side to the picture. The necessity for apprenticing young men at an early age in order that they might be out of their articles and have obtained their qualifications to practise by the time they had reached 21 or 22, led to their removal from school before they had received a sufficiently liberal education, and the want of this education was not only an impediment to the acquirement of an intelligent knowledge of the terms used in medicine, and their correct pronunciation and spelling, but an obstacle to the future practitioner occupying that proper standing in society to which the members of a learned profession are justly entitled. Moreover, there were idle as well as diligent apprentices—there were masters who hindered as well as masters who helped—masters who took an interest in their pupils and facilitated their progress, and masters who cared for none of these things. Five years are a very considerable proportion of the period allotted for education, and it was commonly remarked that all that had been learnt within that term might have been acquired in three or in six, or at the utmost in twelve months. Hence the abolition of the system of apprenticeship cannot be altogether regretted—that which is to be regretted is that nothing was devised to take its place, and to secure the

advantages without the disadvantages of the system. The student often comes to the hospital in the raw state in which he left school. Impressed with the benefits which residence with a practitioner prior to entrance at a medical school afforded, two of the Corporations encourage the student to become a registered pupil to a medical man, and in this way to commence his professional studies.

In whichever of the three ways specified a student may commence his professional studies, in order to count the time he must at once proceed to register his name as a medical student. Whilst he cannot register until he has actually commenced, he must register as soon as he has commenced. Registration is thus conducted:—Each Branch Registrar supplies to the several qualifying bodies, medical schools, and hospitals in that part of the United Kingdom of which he is Registrar blank forms of application for the registration of medical students. The form is thus worded:—"I hereby apply to be registered as a student in medicine, in conformity with the regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars: [name of applicant to be written in words at length], surname, Christian name, preliminary examination, place of medical study, applicant's signature, address, and date of application." A copy of the form duly filled in is produced or forwarded to the Branch Registrar, together with a certificate of having passed a preliminary examination, and another certificate showing that the applicant has commenced professional study. The following is the form of the last-mentioned certificate:—"I hereby certify that Mr. has commenced the study of medicine in [insert name of school, or hospital, or place of apprenticeship, as the case may be]. Signature of master, teacher, or official, in a medical school or hospital, . Place and date, .. To the Registrar of the Branch Council for ." The word master or teacher is held to include any registered practitioner whose pupil the applicant may be. It is desired by the Medical Council that registration should have the effect of rendering it necessary that all students shall spend four years in the acquirement of professional knowledge before passing the final examinations for the diplomas qualifying to practise medicine and surgery. To some extent this aim is neutralised by the regulations of the College of Surgeons of England and the Apothecaries' Hall in Ireland. It is true that both these Boards demand four years' professional study after the

preliminary has been passed, but it is equally true that these four years will be reduced to three if a pupilage of a year, which may be more nominal than real, is allowed to count in the term. Again, it is stated by the well-informed writer of the excellent student's number of the *Medical Press and Circular* (September 18th, 1878), that "in Ireland and Scotland the majority" (?) "of the licensing bodies do not insist on the passing of Arts examinations before registration, nor do they insist on four years' study from any fixed date—a system which is reprehensible on the part of the licensing bodies, highly objectionable in its effect upon medical education, and very injurious to the student. It offers a premium to idle or uneducated students to put off the paltry preliminary examination *de die in diem* until the eve of his medical examination, and it enables the student to receive his diploma within less than three years of study, because the date from which his commencement is calculated is not fixed. Generally speaking, in Ireland the student's name is forwarded to the Registrar of the Branch Council by the public officer of his school, and, therefore, he need give himself no trouble about it."

It has also been shown in the pages of the same journal that many of the medical schools in Ireland systematically discourage the registration of their medical students, and ignore the "recommendations" of the General Medical Council. Registration was designed to serve the purpose of fixing a date from which the commencement of medical study could be reckoned, and to ensure the devotion of four years to strictly professional education. Discouragement of registration means that the Medical Schools find it to their advantage to allow students to enter weeks and months after the commencement of a session, and, on the strength of attendance on the educational courses during a fractional part of the session, to be credited with attendance for the whole session. For instance, students who ought to enter at the beginning of October are said to be accepted even as late as the following March or April, and to be permitted to count three weeks attendance at the fag end of the winter session as six months of professional study. Furthermore, these "March hares," as they are termed, are sometimes permitted to present themselves for examination two or three months before the end of the professional curriculum on the strength of a "current certificate," representing that they are in attendance on courses of lectures which would be completed in

due time. By this ingenious process of lopping off the head and tail of the curriculum, a "March hare" may obtain his diploma after a period of study at a medical school not much exceeding two years in duration. If this be a correct representation of the existing order of things, or even only of what is possible at the medical schools in Ireland, it proves the necessity of exchanging the despised "recommendations" of the General Medical Council for regulations possessing a binding force. The actual extent of the evil may be to some extent inferred from the following statement of the number of students attached to each of the Medical Schools in Ireland who were registered during the year 1878, taken from the *Medical Press and Circular*:—

| | |
|---|---|
| School of Physic, - - - | 58 |
| Queen's College, Galway, - - | 43 |
| Queen's College, Belfast, - - | 85 |
| Queen's College, Cork, - - - | 53 |
| Catholic University School, - - | 15 |
| Carmichael School, - - - | 10 |
| Ledwich School, - - - | 58 |
| Steevens' Hospital School, - - | 12 |
| Royal College of Surgeons School, - | 28 |
| Miscellaneous, - - - - | 8 |
| | 370 |

Before 1878 some of the Licensing Corporations required medical students intending to present themselves for examination at their Boards to register their names, &c., during the first fifteen days of each session, not accepting the Council's registration as sufficient. The College of Physicians of London had abandoned separate collegiate registration some years previously, the Apothecaries' Hall gave it up in 1877, and the College of Surgeons of England has now followed suit. Registration by the Licensing Corporations had been originally instituted on the recommendation of the Council, and on the recommendation of the Council it has ceased and determined. The necessity imposed upon London students of visiting the College and Hall to register their attendances at the medical schools during the first fortnight of the session, and perhaps also at its termination, was an unmitigated nuisance both to teachers and students.

When the Preliminary Examination has been passed, and registration as a medical student accomplished, recognised medical study begins. The majority of students enter at once at one of the medical schools. The choice of a medical school is dependent upon a variety of considerations. Nationality, probably, determines the division of the kingdom in which the medical school is selected. Religious persuasion has some influence in Ireland. Recommendation of friends and relatives is a potent factor. Fathers send their sons, as a general rule, to the school at which they received their own education, unless special circumstances, such as proximity to another school, lower fees, &c., determine a different choice. To some schools students are attracted by the moderate fees—to others by the excellence of the educational arrangements, the abundance of appointments at the hospital and practical advantages—to others by acquaintance with members of the staff, and to others again by convenience of access. The reputations of teachers and members of the staff are not without influence. A brilliant operator and a profound physician who has acquired fame as a clinical instructor may draw students to the schools with which they are connected. No advantage which a school can offer is lost for lack of display. Advertisements of the various schools are freely inserted in the journals, professional and unprofessional, and the attractions of each are set forth in the most telling and picturesque form. A large sum of money must be expended annually on advertisements of schools. Probably the larger schools may each spend £150 or £200 in advertisements irrespectively of the sum laid out in printing and distributing copies of the prospectus. The number of advertisements inserted will vary with the financial position of the school, and with the comparative estimates formed by the authorities of the school of the efficacy of advertisements. We are not aware that any school has had the courage to abstain from advertising; but we know that if one school advertises freely others will consider themselves bound to follow the example. Some years ago an attempt was made by a conference of teachers to limit the number of advertisements. A meeting was held at St. Bartholomew's Hospital in July, 1847. Six schools sent representatives. A general form of advertisement for all the schools was drawn up, the exact number of advertisements to appear and the names of the journals in which they were to be inserted were specified. It was resolved that in the advertisements all titles of literary and scientific

distinction should be omitted, that no mention of fees should be made in any advertisement, and that the prospectus of a school should not be sent to any journal for the purpose of being displayed therein. The efforts of the conference proved abortive. Advertisements of medical schools are regarded in two different lights. In one aspect they appear as the instruments of an unhealthy competition between the schools—a competition based on show rather than substance, whilst in the other they are merely precautionary measures to prevent the possibility of a useful light being concealed under a bushel. Gladly as we would see the exuberance of our school advertisements pruned, and admitting that there are disadvantages connected with the system, in addition to the expenditure of money which might be employed to better purpose in improving the appliances of the schools, we think that under the present system of independent schools in competition with each other the continuance of abundance of advertisements must be expected. There are always a good many of what may be termed floating medical students—students who apply to one school after another, and do not make up their minds where they will enter till the commencement of the session, and the authorities at the schools naturally entertain the hope of securing some by a skilfully-worded advertisement. The argument is used that if the advertisements succeed in securing one student the expenses are defrayed. In the same way one or two prospective students are mortgaged to pay for the scholarships and prizes which are instituted to attract them; another student may be devoted to the improvement of a museum or to an opening conversazione. It is not remembered that other schools are occupied at the same time in mortgaging the same or other students, and that if some students are gained others are lost by the counter-attractions and arrangements of rival establishments advertised at the same time. There can be very little doubt that more would often be gained by judicious outlay on improvements at the school—on the museum and library, on illustrations for lectures, and on assistant demonstrators, than on lengthy and showy advertisements in the newspapers. The teaching arrangements at many of the schools must necessarily be defective in some departments, but until schools are brought under inspection, as probably in process of time they will be, it would be too sanguine to anticipate any marked change for the better.

The educational requirements of the Examining Boards com-

pletely determine the nature of the instruction imparted to students at the medical schools. The whole of the machinery for professional education is set in motion by the mandates issued by the Corporations. If the machine be imperfect and the machinery cumbrous or inefficient, the fault rests, not with the schools, which enjoy but a limited initiative, but with the Corporations, whose yoke is imposed upon them. The Corporations influence the schools in two distinct ways:—First, they issue regulations for medical study. They require students before presenting themselves for examination to produce certain certificates from their teachers, affirming that they have attended certain courses of lectures, certain classes for practical instruction, and certain amounts of hospital practice—medical, surgical, and obstetric; that they have attended a certain number of cases of labour, dissected, and been present at *post mortem* examinations. Secondly, the Corporations prescribe and control the examinations which the student has to pass in order to obtain his diplomas and degrees. They determine the subjects in which students shall be examined, and the extent to which the examination in each subject shall be carried; the number and the nature of the questions set in the written exmainations; the length and character of the *vivâ voce* and practical examinations; the mode of marking the merits of candidates, and the standard necessary for success. The schools must provide all the professors, lecturers, demonstrators, and assistants, needed for the delivery of the courses of lectures and the superintendence of the practical studies prescribed by the Licensing Bodies. They must furnish all the educational appliances required, and must so map out the work at the hospitals with which the schools are connected that all their students may have the opportunity of acting as dressers and clinical clerks, attending midwifery cases, and fulfilling the other demands of the Corporations. Furthermore, the schools must adapt the instruction offered to the genius of the examinations, paying special attention to those parts of the various branches of medical knowledge which are known to be favourite subjects of inquiry by the examiners.

The main feature of the system of medical education in England may be said to be the existence of a number of medical schools, independent, and in competition with each other, entirely uncontrolled by the State, but owning allegiance to the nineteen Licensing Corporations. So far as the Medical Council is able to influence

the regulations of the Corporations to that extent the schools are regulated by the General Medical Council. The Council issues its educational regulations, or rather recommendations—for the Council has neither the power nor the wish to regulate, and is satisfied to issue recommendations—to the Corporations. The Corporations conform or not, as they may think fit; but, if they conform and make regulations carrying out the recommendations of the Council, such regulations become binding on medical students, and the schools must make provision for the wants of students accordingly. The examining Corporations guard the portals of the profession; they possess the power of the keys; they can admit or refuse to admit candidates; and hence they direct the whole course of medical education and examination and the action of the schools, subject only to such control as a vacillating Council, feebly armed with the uncertain weapon of recommendations, can exercise over them. Furthermore, they possess another power. Although there is nothing to hinder the establishment of new medical schools by private individuals jointly or severally, the Licensing Corporations can virtually determine whether a new medical school shall exist or not, and whether the old medical schools shall continue or not to exist. They can give or refuse "recognition" to schools. The Corporations publish lists of schools and institutions from which they will receive certificates of study. They can, if they please, say to a school—"Your arrangements are not efficient enough to ensure a proper medical education. The hospital which your students attend has not a sufficient number of beds or patients, or does not contain the class of cases necessary for teaching students." In point of fact, when a school or hospital has once been recognised, the control exercised by the Corporations over that school or hospital is very slight. The governing authorities at the Corporations would find it too onerous or expensive to institute visitations of schools. A medical school in the United Kingdom is never inspected. Each enjoys a reputation of its own, founded on the opinions of alumni, the known opportunities of study which it presents, the characters of the staff, and the position which its students take at the examinations, and each is left to flourish or decay by the operation of the natural causes which determine the rise and fall of educational institutions.

The second prominent feature of our educational system is, as already mentioned, the issue by the Corporations of regulations

requiring students before presenting themselves for examination to produce a number of certificates from their teachers of attendance on lectures and other courses of instruction—in a word, the second feature is the feature of schedules. The certificates are generally printed on a broad sheet called a schedule, each Corporation publishing its own form. Schedules were invented to ensure that students should apply themselves diligently to the various subjects of medical education, and traverse all the ground which must be traversed by those who aspire to treat human diseases and injuries. Schedules were invented to supplement the deficiencies of examinations—and what a gulf they were called upon formerly to fill! However efficient and searching an examination may be, it never can test the student in more than a fraction of the subjects of study; it cannot elicit all his theoretical knowledge or make him perform all that he ought to be able to perform before he is allowed to become a medical practitioner. In the case of inefficient examinations the margin of omitted knowledge must occupy a very large proportion of the page. Schedules, therefore, are intended to cover as far as possible the defects—the unavoidable as well as the avoidable defects—of examinations. Thirdly, schedules were designed to be safeguards against the system of cram. There are certain shrewd and able functionaries known under the familiar name of *grinders*. Their office is to prepare the student for his examinations in the shortest possible period of time. Two classes of men resort to the grinder. There are the really good and diligent students, who require direction in their studies, and who do not find sufficient comfort and help at the schools to which they belong, students who experience a difficulty in preparing themselves, and who wish to have the subjects of study mapped out for them, to avoid discursive efforts and to concentrate their attention on the main points. Men of this stamp often go to grinders to be prepared for some special examinations, such as those of the University of London or for admission into the army and navy. Such men, perhaps, form the minority of those who resort to the grinder. The other class of men are the students who have wasted their time and opportunities at the schools. There are a few industrious but dense students with very short memories who find help from the grinder; but the majority are men with fair, and even good, abilities who have frittered away their time in idleness or dissipation. The energies of the men composing the class of the grinder, and the

efforts of the grinder himself, who is their "guide, philosopher, and friend," are directed to the attainment of their end in the most effective way and in the shortest possible space of time. The grinder is thoroughly acquainted with the genius of the various examinations. He makes it his business to ascertain the scope and nature of the questions put to candidates, and he collects and studies examination papers. He condenses and concentrates the knowledge of text books; he extracts the pith for the benefit of his class. Licensing Corporations have generally entertained a strong aversion to grinders. The authorities at the Corporations are mostly men who hold or have held official positions as teachers at the schools, and teachers dislike having their men subtracted through the superior attractions of the grinder. But there is a better reason for the aversion. The grinder appears to represent the plan of neglecting the proper opportunities for study and for the acquirement of practical knowledge, and passing examinations by sheer force of cram. It is against cram, as opposed to steady, regular work, that schedules are meant to be protective. To a great extent they might be thus protective if two conditions were fulfilled at the schools—first, if the certificates in the schedules were never signed unless students had attended in a proper manner, and had shown that they had profited by the instruction imparted; and secondly, if the nature of the help afforded to students was always as efficient for the purpose in view as the assistance of the grinder. With regard to the first condition, it is well known that it is very unequally fulfilled at the medical schools, and that in some it is not fulfilled at all. In 1862 the General Medical Council obtained a return from the various Licensing Bodies as to the means used for ascertaining whether the attendance of students at hospitals and lectures is *bonâ fide*. Answers were received from most of the Corporations, and it was found that there was great diversity in the methods adopted. In regard to seven the Council were satisfied of their conscientious endeavours to ensure a *bonâ fide* attendance. From the University of Dublin it was ascertained that the roll was called by the professors at the School of Physic; at Cambridge attendance was checked by inscription and delivery of cards; at Oxford the validity of the certificates was determined by the examiners. The following important bodies—the Universities of London and St. Andrew's, the Royal College of Physicians of London, the Royal College of Surgeons of England, the Faculty

of Physicians and Surgeons of Glasgow, and the Apothecaries' Societies of England and Ireland—trusted entirely to the teachers—in other words, there was no security against schedules being signed improperly. The custom of the medical schools differed widely. At some there was no check whatever; at some the roll was called occasionally by the teacher—perhaps once or twice a month; at some the students inscribed their names, delivered their cards, or were checked by the janitor; at some the names were taken at every lecture; but, even at the schools where the authorities conscientiously endeavoured to secure a *bonâ fide* attendance on lectures, it was found very difficult to record satisfactorily attendance on hospital practice. The result was, and still is, that schedules have largely failed as a supplementary safeguard. It is notorious that students who have rarely—perhaps never—been inside a lecture theatre have obtained the official signature to the mendacious statement that they have "diligently attended" courses of lectures. It has been related on credible authority that a student who was in search of the Professor of Botany (whom he did not know by sight), for the purpose of securing his autograph, unhappily thwarted his daring enterprise by making the untoward mistake of accosting the Professor himself, and asking him to be good enough to tell him where the Professor might be found. It is also well known that in some quarters it was deemed useless to check the attendance of the student, because the notion prevailed that if the student had paid his fees he could not legally be refused the signature of his schedule, whether he had been present at lectures or not. Such a conclusion is entirely opposed to the common sense which, amidst all legal subtleties and technicalities, regulates the proceedings of the courts of law. But, whatever difference of opinion might be expressed on the legal bearings of schedules, there was a universal chorus of consenting opinion that they were an insufferable nuisance to all concerned, and an anachronism as patent as sumptuary laws and turnpikes. Hospital physicians and surgeons, and lecturers at schools, were waylaid at the most unreasonable hours, and pestered for signatures at their private residences by students whose faces were unfamiliar and names unknown. A wise regulation, issued originally by the College of Surgeons of England, permitted the duty of signing schedules to be performed by a single officer. Professors rejoiced at being relieved of the strain, and gladly combined to victimise

the unhappy deans and vice-deans on whom the duty naturally devolved. "The intense worry of searching registers, inventing excuses for signing the schedules of notorious offenders, listening to the plausible exculpatory tales of scapegrace students, or the vicarious apologies of bribed beadles, and of the categorical attachment of the complete autograph to multitudinous certificates, is only known to the few to whom the duty has been delegated by colleagues who, while rejoicing themselves to escape from the infliction, either scantily appreciate the services of the dean or vice-dean in relieving them of an intolerable burden, or repay the obligation by blaming him if any accidental error is committed."—*Medical Examiner*, May 4, 1876. Whatever may be the merits of schedules—merits which we have failed to discover—the considerations here adduced certainly show that they are not protective against the grinder, inasmuch as they are not certain to drive the horse to water, and, if they do drive him to water, are powerless to make him drink. Schedules fail to influence the very men who stand most in need of instruction. But, if compulsion fails, does the quality of the help afforded to students at our medical schools make amends for the failure, and prove so attractive as to compete successfully with the officially-depreciated grinder? Possibly the question is not entirely equitable, for it must be borne in mind that there are students at medical schools who would not listen to the voice of the charmer, charm he never so wisely and so well. Necessity alone compels them ultimately to put their shoulders to the wheel. For such men grinders would ever be indispensable. Moreover, grinders have this great advantage—all the men who resort to them have made up their minds to do their utmost to ensure success at their examinations; they feel that they must surmount all the difficulties which previously turned them aside from the pursuit of knowledge for the pursuit of pleasure. The lecturers and teachers at the schools are burdened with these men before they have sown their wild oats—with the prodigal sons who have not been reduced to penitence by the prospect of husks. Hence, the comparison is scarcely a fair one. Furthermore, the lecturers and teachers at the schools are not free agents; they must obey the mandates of the Corporations, and must deliver their tale of bricks. The further examination of the question must follow the completion of our account of the present educational system.

Having detailed the reasons which led to the issue of schedules

by the Corporations, and to the variety of the compulsory observances imposed upon students, we pass to the substance of the regulations themselves. These regulations, so far as they relate to the minimum qualifications to practise medicine and surgery, are in their main outlines coincident. It must be premised that the academical year is divided into two sessions. In England there is a winter session of six months' duration, beginning on the 1st of October and ending on the 31st of March; and there is a summer session of three months' duration, beginning on the 1st of May and ending on the 31st of July. In Scotland the winter session begins in November. In Ireland the winter session begins nominally on the 1st of October, but really in the first week of November, when introductory lectures are delivered. At all the Corporations four years of professional study are required, and the age of twenty-one is the earliest age fixed for the final examinations for the diplomas, or for conferring the diplomas. The subjects of study are the same, or nearly the same. The student has to produce evidence that he has attended courses of lectures on anatomy, physiology, chemistry, botany, materia medica, midwifery, medicine, surgery, clinical medicine, clinical surgery, forensic medicine, and toxicology; and in some instances zoology or comparative anatomy; pathological anatomy, or pathology, or morbid anatomy, and diseases of women. He must also bring certificates to show that he has attended a certain number of cases of midwifery, that he has dissected the human body, attended hospital practice, medical and surgical; received instruction in vaccination, taken charge of cases under proper supervision, and, in some instances, performed the duties of dresser to surgical patients, and clinical clerk to medical patients. The Licensing Corporations also prescribe the number of courses of lectures to be attended in each subject, the nature of the courses, and the number of lectures which shall constitute a course. They fix a minimum of beds or patients which a hospital must contain in order to be recognised as an institution from which educational certificates will be received. All this, however, is accompanied by a wide diversity in details. For example, the Scottish Universities require that six months' courses of lectures shall include not less than 100 lectures, and three months' courses not less than 50. Other Corporations take no heed of the number of lectures in a course. In England, a winter course of lectures on any subject comprises from 40 to 80 lectures, according to the

number of lectures delivered in the week. The ordinary number of lectures given every week in each course is three, occasionally four, and in rare instances five. When the learned Professor is indisposed, or prevented by urgent private business from lecturing, he sends a note or a telegram to the beadle of the College, who affixes a notice to a board announcing that the Professor is "unavoidably prevented lecturing to-day." The Professor is not obliged either to find a deputy or to make good his arrears of lectures. We have known a lecturer with a rapidly increasing private practice "unavoidably prevented" delivering seven lectures out of a total of thirteen, which formed his share of the course. The number of patients, or the number of beds (for some of the Corporations mention patients, and some beds), which a hospital must contain in order to be recognised as an educational institution, is fixed at different figures. The Royal College of Surgeons of England requires metropolitan hospitals to contain 150, and provincial hospitals 100 *patients*. The Royal College of Physicians of London says 100 *beds*. The Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, and the Universities in Scotland, demand accommodation of 80 *patients*. The Royal College of Physicians of Edinburgh requires 80 *beds*; the Queen's University in Ireland is content to accept 60.

The subjects selected from the natural sciences as desirable subjects of study for medical students and practitioners are—botany, physics, or natural philosophy, chemistry, and zoology or comparative anatomy. It would be generally admitted that a medical man should possess a fair knowledge of the structure of plants and animals, the principles of classification, and the general laws of heat, light, sound, and electricity, as well as the elements of mechanics and the elements of chemistry. Such a knowledge could only be ensured by regulations both for education and examination which would render practical study indispensable. Let us compare the regulations of the Corporations in respect to the scientific subjects. Look at physics or natural philosophy. Till recently physics were taught as an integral portion of the course on chemistry at the medical schools. Some schools make it still a separate course, but students need not attend it, for it is not demanded by the Corporations. At other schools the voice of instruction has been silenced. The General Medical Council

placed the elementary mechanics of solids and fluids, meaning thereby mechanics, hydrostatics, pneumatics, and hydraulics, among the purely optional subjects at the preliminary examination, and the Colleges and Halls have been content to follow the recommendations of the Council in this respect. Mechanical philosophy is included among the subjects of the first or scientific examination for the M.B. degree at Oxford. The Scottish Universities place the elements of mechanics among the *compulsory* subjects for the registration examination, and include natural philosophy among the *optional* subjects to be passed before admission to the first professional examination. The Universities of Cambridge and Dublin include physics in the first examination for their medical degrees, and the Queen's University examines in experimental physics. The only Examining Board which does full justice to the subject is the University of London, which requires natural philosophy at the matriculation and experimental physics at the preliminary scientific examination. The outcome of the deficient provision for the study of physics must be a very defective standard of knowledge among the rank and file of the profession in reference to the general laws of matter and the special facts which have to be applied daily in private practice. So far as the Examining Boards are concerned the family doctor may know nothing of the mechanical principles and the physical phenomena illustrated in the construction of the instruments which he has to use in the treatment of the sick. He may be altogether innocent of acquaintance with the phenomena of heat, light, sound, and electricity, which lie at the root of rational therapeutics in special branches of his calling.

Five of the Corporations ignore botany; the rest demand attendance on a course of lectures. The subject is always omitted from the examinations of the London College of Physicians—frequently omitted at the Apothecaries' Hall. The Universities generally examine on it at the first professional examinations.

Zoology or natural history or comparative anatomy is required by eight out of the ten Universities and the Apothecaries' Hall in Ireland, but it is included by some in the *first* professional and by others in the *second* professional examination. It "lies in cold obstruction" at the remaining Corporations.

Chemistry is more favoured, a six months' course of lectures with practical instruction being included by all in the medical

curriculum. The College of Surgeons of Ireland distinguishes itself by demanding two courses. Yet the College of Surgeons of England declines to test the student's knowledge of chemistry, and the College of Physicians of London professes to examine only in chemistry applied to pathology at the final examination for the licence.

Let us turn now to the professional subjects of study. In human anatomy some of the Examining Boards prescribe one course of lectures, and others two courses. The College of Surgeons of Ireland is again to the front in demanding three courses. Generally speaking, the student is required to dissect during two winter sessions. The College of Surgeons of Ireland insists upon dissection during three winter sessions. At the Scotch Colleges fifty lectures on physiology are deemed sufficient; at the English Colleges and the Apothecaries' Hall two six-month courses are required, whilst the College of Surgeons of Ireland demands three. The College of Surgeons of England ordains that one of the courses of physiology shall be a practical course in which the student manipulates and prepares specimens for the microscope; the other Corporations are content with lectures. The Colleges of Surgeons of England and Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Colleges of Physicians of Edinburgh and Dublin do not require attendance on lectures on botany, whilst the College of Physicians of London wisely permits the course to be preliminary. The remaining Corporations prescribe either a three months' course or a course of 50 lectures. A course of 100 lectures on materia medica is ordained by the Scottish Universities, whilst a course of three months' duration only, in which perhaps 30 lectures may be given, satisfies the Universities of England and Ireland and all the Medical Licensing Corporations. A single six months' course of lectures on medicine suffices for the Scotch and Irish Medical Corporations, whilst the College of Physicians of London and the Apothecaries' Hall in Blackfriars demand two courses. A single course is specified in the regulations of the Irish Universities. One course of 100 lectures, equivalent to two English winter courses, is required by the Universities in Scotland. Surgery presents further differences—two winter courses of lectures for the College of Physicians of London; two courses, one being practical and manipulative, for the English College of Surgeons; one winter course for the Colleges of Physicians of

Edinburgh and Ireland and the Irish Apothecaries' Hall; two courses, or one course and six months' extra clinical surgery, for the College of Surgeons, Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow; three courses for the College of Surgeons of Ireland, and none at all for the English Apothecaries' Hall. It is satisfactory to note that the Apothecaries' Hall of Ireland appreciates the importance of midwifery and diseases of women by requiring a course of six months' duration, and that in this respect it is in advance of the eight other Medical Licensing Corporations which still adhere to the ancient summer course. Similarly the Scottish Universities prescribe one course of 100 lectures, or two courses of 50 lectures, provided different branches of the subject are treated in the two courses; and the University of Dublin is in advance of the Queen's University. One of the most important differences is in the amount of midwifery practice. Twenty cases are demanded by the Colleges of Physicians of London and Dublin and the two Apothecaries' Halls; ten cases by the College of Surgeons of England; six cases only by the Scotch Colleges, and none at all by the College of Surgeons of Ireland; the Scottish Universities say three months at a midwifery hospital or 6 cases certified by a registered practitioner; the University of Dublin, six months' instruction in practical midwifery, including clinical lectures at Rotunda, Coombe Lying-in, Sir P. Dun's, or Dr. Steevens' Maternity. With regard to the Royal College of Surgeons of Ireland, it must be noted that the authorities are evidently desirous of establishing a high standard of knowledge in midwifery. The College only confers its diploma in midwifery on Fellows and Licentiates of the College, and demands from candidates evidence of attendance on a course of lectures on midwifery and diseases of women and children, six months' attendance on the practice of a recognised lying-in hospital or dispensary, and a certificate showing that the applicant has conducted thirty labour cases at least. These regulations leave nothing to be desired; but the fact that it is optional with Fellows and Licentiates to take the diploma appears to keep the door open for the admission to the Medical Register of candidates who have not been examined at all in midwifery. Probably the College has some good and reasonable ground of confidence that it may safely trust entirely to a purely optional midwifery qualification and abstain from asking for answers to questions on midwifery from candidates for the letters testimonial;

but the advantages of this course appear to the eye of external criticism to be outweighed by the benefits which would be derived from making the qualification compulsory. Ten years ago the Royal College of Surgeons of England neither examined in midwifery for the membership, nor required attendance on midwifery cases, yet hundreds of medical men had been enjoying the position and privileges of fully-qualified practitioners on the strength of the fractional diploma of member, and many must have settled down to deliver women from the great pain and peril of childbirth who were scarcely able to recognise the os uteri, far less competent to apply the forceps and other obstetric instruments. In response to the action and representations of the Medical Teachers' Association, the College made attendance on ten midwifery cases necessary for the diploma of member, but the acknowledged blots of giving a separate registrable qualification in midwifery, and abstaining from examining in midwifery candidates for the membership, have not yet been removed. The amount of hospital practice, both medical and surgical, demanded varies at the different Boards. The Scottish Universities and the Medical Corporations require 24 months' medical and surgical practice at a medico-chirurgical hospital containing at least 80 beds; the Queen's University prescribes the same term at a hospital with not less than 60 beds; the Apothecaries' Hall in England requires 24 months' medical practice, but no surgical practice; the Apothecaries' Hall in Ireland specifies the same amount of both—viz., two winter and two summer sessions; the College of Physicians of London asks for three winter and two summer sessions to be given to each; the College of Surgeons of England, for three winter and two summer sessions' hospital practice, one winter and one summer being devoted to medical practice, and the whole period to surgical practice; the College of Surgeons of Ireland and the King and Queen's College of Physicians, Ireland, demand three winter and three summer sessions for both. Some of the Boards omit altogether regulations requiring medical students to act as clinical clerk and dresser, and those which make some provision of the kind assign different periods to the work. The College of Physicians of London gives to each office a term of three months; the Apothecaries' Hall of England says that the student may act as clinical clerk for six weeks at least, whilst the sister institution allows the care of patients to be undertaken by the student in the several capacities, indifferently, of clinical clerk, or

dresser, or pupil, or assistant. The College of Surgeons of England prescribes six months' charge of patients under a surgeon at a hospital, dispensary, or union; the Scottish universities, six months' attendance on the out-practice of a hospital, dispensary, or registered practitioner. Sufficient provision is not made at many of the Boards for the study of morbid anatomy. Whilst the College of Physicians of London requires a six-months' course of morbid anatomy, with attendance in the *post-mortem* room, the College of Surgeons of England requires a three-months' course on pathology, with attendance on demonstrations in the *post-mortem* room during the whole period of surgical hospital practice; the Apothecaries' Hall in England requires attendance during one winter and one summer session; the Scotch Colleges demand a three-months' course of lectures only; the King and Queen's College of Physicians says one course, and the Apothecaries' Hall and the College of Surgeons of Ireland make no mention whatever of the subject.

The diversity in the requirements of the Corporations, of which we have given the details, is attended with a variety of inconvenience to students. In the first place, as the student has to present himself at two at least of the Examining Boards, he finds himself the victim of excessive compulsion and conflicting authority. The amount of attendance on lectures and hospital practice required by his rulers is actually more than he could compress into the time at his disposal. Four years' professional study would not be too long for his work if it were mapped out with a single eye to his convenience and in such a manner as to secure a due sequence of the subjects of study. But "his very worthy and approved good masters—the potent, grave, and reverend signiors"—who preside in the Councils of the Examining Corporations have not only piled Ossa upon Olympus in reference to compulsory observances, but they have made provision for concentrating the burden to be borne upon a portion of the curriculum instead of equably distributing it over the whole. No attempt at classification has been made, and a regulation has been adopted at two of the Corporations which license the largest numbers of practitioners, permitting the student to spend more than a year of the prescribed four years of study away from the medical schools. The result has been to overcrowd the curriculum, especially during the first eighteen months of the student's career. The remarks made upon this subject in 1868 by a member of the Medical Teachers' Association being almost as

applicable as they were at the time when they were delivered, may here be quoted:—

"During the first eighteen months, or, omitting the vacations, within the space of fifteen months, made up of two winter sessions of six months and one summer session of three months, the student is required to attend the following courses of lectures:—

"Two six-month courses on anatomy, the lectures being given four times a week.

"Two six-month courses on physiology, three lectures a week.

"One six-month course on chemistry, three lectures a week.

"One six-month course on surgery, three lectures a week.

"One six-month course on medicine, three lectures a week.

"One three-month course on practical chemistry, occupying one hour or one hour and a half, three times a week.

"One three-month course on botany, three lectures a week.

"One three-month course on materia medica, three lectures a week.

"One three-month course on midwifery, three lectures a week.

"The whole number of systematic lectures is about 700 in the fifteen months.

"Besides attending lectures, the student should be dissecting diligently during the winter sessions. If he dissected as he ought to dissect, he would go through each part of the body twice at least. On an average, for proper dissection, each part occupies three, or four, or five hours daily for a month; and as there are eight parts to be dissected, the student should be dissecting eight months out of the fifteen. At the same time he should be present at anatomical demonstrations three or four times a week, and very likely voluntary class examinations, intended as a preparation for his examinations at the Colleges, Hall, or Universities. But this is not all. Lectures and demonstrations, and dissection and examinations, are not enough for him. In the wards of the hospital to which he belongs, he must attend the practice of medicine for six months, and the practice of surgery for twelve months out of the fifteen. Attendance on practice means accompanying the physicians and surgeons round the wards, and satisfying them as to his presence in the flesh. As there are generally three physicians and three surgeons to satisfy, and, theoretically, he should attend two-thirds of the medical and two-thirds of the surgical practice, he must be in the medical wards four days a week, and four days

a week in the surgical. But this attendance on practice must be supplemented by a further attendance on lectures called clinical lectures—lectures delivered away from the bedside, on cases with which the student is supposed to have made himself familiar, but about which he very seldom, at that period of his education, knows anything at all.

"Now, according to a calculation, which I base on the physiological axiom that eight hours' work in the twenty-four is as much as can be expected from ordinary human beings, this compulsory attendance would take up eight hours every day for 468 days. In fifteen months there are 456 days—65 Sundays, and 391 working days. Deducting twelve days for the Christmas vacation, we have left 379 working days. Well, it might have been thought sufficient to provide for these 379 days only, but such is the pious and fostering care of the Licensing Bodies, that between them provision is made also for 89 days which do not exist. And so the work of these 89 non-existent days must be crammed into the midst of the 379 days which are already fully provided for—and provided for, be it observed, without any allowance for reading or sustaining life during the eight working hours. The consequence of this is, that the burden of the student's work falls so heavily on him—more especially in the winter—that he cannot by any management or good-will attend all the classes properly. He may have been advised in the introductory lecture, every word of which he believed, to follow the course marked out for him by wiser heads than his own; and he may have determined to attend all the lectures punctually and regularly, and to plunge into the wards without delay. Experience, however, soon teaches him that, not only does he gain no benefit from following at the heels of a surgeon or physician, before he knows anything of anatomy and physiology, but that the exercise must be performed at the expense of dissection, which is much more important, or of attendance in the out-patients' department, where he can pick up a few crumbs of elementary knowledge. Experience also shows him that arrangements are not made with any single eye to the convenience of students.

"The surgeon and physician are going round at the same time, and he ought to be with both. A clinical lecture is being delivered at the same time as a systematic—say anatomical—lecture, and he ought to be present at both. The physician or the surgeon comes late and prolongs his visit into lecture hours. The student is

obliged to be dressing out-patients when he ought to be in the Lecture Theatre. An examination from which he derives benefit clashes with a journey through the wards from which he derives none. One class clashes with another, and dissection clashes with all. Under these circumstances, being driven to extremities by the Licensing Boards, he lightens the ship. He parts with his daily journey round the wards, he cuts down some of the lectures, and pitches others clean overboard. This process brings in the dean or vice-dean to remind him of his responsibility, and then he neglects his dissection to make up his attendance to the regulation two-thirds." *

A second ill effect of the diversity of requirement by the Corporations consists in the obstacles thrown in the way of those medical students who aim at obtaining the degrees of a University like the University of London. At this University the examination which follows the matriculation comprises the scientific subjects, and is termed the Preliminary Scientific Examination. It embraces botany, inorganic chemistry, mechanical and natural philosophy, and zoology. A student who has entered at one of the medical schools, and desires to attain a high standard of excellence, becomes fired with the desire to acquire the degrees of the University, but he cannot devote himself entirely to learning the subjects of the Preliminary Scientific Examination, because he has at the same time to be attending lectures and working at anatomy and physiology, and preparing for the Primary Examination at the College of Surgeons. One of two results follows—either he attempts to do both and fails, or he is obliged to give up the distinctions which he might have gained if the curricula of the Colleges and Halls coincided with the University curricula. If he fails he is worse off than if he had never made the effort, for the time devoted to the scientific subjects which he has been unable to master is so much time deducted from the period, by no means too long, which he can afford to give to medicine, surgery, and medical and surgical practice. It may be said that he should pass the preliminary scientific before entrance at a medical school. Undoubtedly he should, but, as a matter of fact, from various causes many do not. A frequent cause is inadequate information about the regulations of the Corporations and the value of the degrees of the University of London. Coincidence of the curricula would be the natural cure.

* Remarks on the Necessity for the Revision of the Medical Curriculum. 1868.

A third evil is the insufficient cultivation of special subjects, such as diseases of the eye, diseases of the ear, diseases of the skin, diseases of the throat, diseases of the mind, diseases of women, therapeutics, hygiene, and state medicine. These subjects are allowed by the examining authorities to take their chance in the medical curriculum, with the exception of diseases of women, to which a few call attention. It is amusing to find one of the Scotch Colleges, in the hopeless dilemma created by an overweighted curriculum, relieving an evidently overburdened conscience by issuing a strong recommendation to students to avail themselves of any opportunities which they may possess of attending lectures (always lectures) on ophthalmic and mental diseases, also on botany, comparative anatomy, and the use of the microscope. The neglect of the important branches of medical education which have been enumerated would alone suffice to demonstrate the futility of present regulations, and the obstruction to progress which nineteen independent authorities can offer.

The quality of the practical work demanded, and the actual results of existing rules, are worthy of close attention. Every one knows that the system of compulsory attendance on hospital practice is a very curious system, because it is compulsory mainly of bodily presence and undirected physical exercise, and because it insists upon evidence being adduced chiefly of work performed by the legs, and not by the organs of sense, the hands, and the head, and because the evidence admitted of this bodily presence and bodily exercise is utterly untrustworthy. In short, this evidence belongs to the category of "illusory requisitions" referred to by Mr. Simon in the Educational Report of the Medical Teachers' Association. It is true that the Corporations have added of late years a requirement that the student shall have some sort of supervision of patients as a clinical clerk or pupil or assistant for a period varying from six weeks to six months, but this demand is often satisfied by a nominal attendance in the out-patient departments of a hospital, and it does not alter the stereotyped character of attendance on the medical and surgical practice of a hospital. This attendance fails, partly because it is difficult to enforce, and partly because if enforced it does not fulfil the object for which it was ordained. As it is found either irksome or impracticable to carry out a regular system of marking attendance, many men, as has been already observed, obtain signatures to their schedules whose visits

to the wards of the hospital have been literally of an angelic character; and when they do enter the wards they probably while away the time in any manner other than paying attention to the diseases around them. At times the wards are inconveniently crowded by students in every stage of knowledge and in no stage at all. Those having real business to attend to find it difficult to get near their cases, and only those who are near the cases can see the points of interest which they present; or perhaps the fault is on the side of the physician or surgeon, and his visit becomes a source of discouragement to the student, who has had to go through a perfunctory perambulation, because his teacher may be in a great hurry to get off to private engagements, and may have little time to say anything more instructive than "discharged cured," "make him an out-patient," or "go on the same." Some of the Corporations require attendance on hospital practice during the whole period occupied by many students at a medical school—namely, three winter and two or three summer sessions, that is to say, they compel all the raw freshmen to make the routine journey through the wards. As a general rule in England the student in his first year shirks the observance, for to conform would signify rejection at his primary examination. Occasionally the virtuous authorities at schools attempt to enforce the regulation, the result being to drive through the corridors and wards of the hospitals a disorganised rabble incapable of being instructed by the teacher, or of instructing themselves by seeing and examining the cases, and effectually putting an end to the benefit which would have been gained by a select number of advanced students gathered round the beds of the patients, and capable of being questioned, and of asking questions in their turn. Nothing has been said of the discomfort and injury which are inflicted upon the patients, especially those in a critical state, because we are considering the regulations entirely from an educational standpoint. The actual results of the system in the past has been to send out from the medical schools a large number of men imperfectly educated, and some who could not be described, except by courtesy, as having been practically educated at all. No doubt there has been a considerable advance in recent years, owing to a decided improvement in the character of the examinations, but the snake has been scotched, not killed. There are still men who neglect sadly their practical work—perhaps not altogether their practical surgery—but certainly their practical

medicine, who cram for their examinations, and as the system of hospital attendance has failed to give them experience, go into practice and gain their experience there. Less than ten years ago Sir William Jenner remarked to the Medical Teachers' Association—"The licence of the special examining bodies ought to insure to the public, for whose interest, and not for that of the profession, they have charters, a supply of men competent to treat them in sickness. The object and end for which they enjoy privileges are that they may send forth clinical physicians and clinical surgeons. Now, as a teacher of medicine, I doubt if their regulations are so framed as to attain this end in regard to my department, and I doubt still more if their examinations are so conducted as to ascertain if the student has attained this end." If any corroboration of this emphatic, though temperate statement had been needed, it would have been found in the painful exhibitions of ignorance, at once ludicrous and lamentable, which used to be displayed periodically a few years ago at the army examinations by candidates who had received the stamp of safety and competency from the Licensing Bodies. Happily there has been a very marked improvement at the later examinations in the quality of the candidates, and much of the credit of the improvement must be awarded to the General Medical Council, both for the exposure of the evil and for the stimulus applied to the Examining Boards by the exposure itself, by the recommendations of the Council, however gentle in their pressure, and by the visitations and reports of the examinations. Nevertheless, the diversity of requirement of the Corporations, the inequality of examinations, the neglect of special branches of knowledge, the remnants of the former vicious system of demanding mere bodily presence in the hospital, need to be met by some specific measures of amendment. But if the present system of compulsion in regard to hospital practice has failed, can we say that the present system of compulsion in regard to attendance on systematic courses of lectures has succeeded? Apart from the evil of diversity of requirement and the chaos and confusion thence arising, does the compulsion insure the proper education of the student? It is extremely doubtful whether it really effects its object. Compulsion drives into the class-room indiscriminately students who know nothing of the subject, and students who may know all that the lecturer will tell them, students eager to learn, and students who not only will not learn, but who will do their best to prevent others from learning.

Some men, resenting the compulsion which sends them into the class-room, will either "stay away from lectures altogether, or attend them in so perfunctory a manner, or in a frame of mind so inimical to the reception of knowledge, that they derive little or no benefit from the best-prepared discourse. They idly join in senseless clamour against instruction by lectures, not considering that if lectures were abolished to-morrow, they would be found on the following day joining in a requisition to a favourite teacher to deliver a course of lectures on some subject which they were anxious to master. The indifference or hostility of the student reacts upon the teachers. They find the compelled pupil carving his name on the desk before him, troubling his sober-minded and anxious neighbour, dispersing paper pellets, or settling into sleep The thorns and briers choke the seed which is scattered, and the ground is unfruitful. Some teachers lose all control over their classes, whilst the comfort of others is seriously diminished by the working of the leaven of frivolity which has been introduced into the plastic mass."—*Medical Examiner*, May 4, 1876. Furthermore, the compulsion of the Licensing Corporations is so exercised as to congregate in the lecture theatre at the same time students of different years. How can a teacher adapt his instruction at once to the junior and senior pupils, and rightly divide the words of wisdom? When compulsory attendance on lectures was first instituted the text books were comparatively few and of inferior quality, and lectures were of far greater importance than they are at the present time. The student often depended entirely on the notes which he took down from the lecturer's lips, but in the present day there are few subjects which can be so treated by the lecturer as to rise superior to the exact knowledge contained in the text books. All the theoretical knowledge which the examiners will demand is set down line for line in the manuals, and it is only the practical work in which the student really requires direction. The student who will not read, doubtless must hear something in the lecture theatre which he may carry away—but such acquisitions are often infinitesimally small, for the same indifference and inattention are carried into the theatre as are exhibited towards private study. Even if the lectures were always of the highest possible quality, it is by no means clear that compulsion would exercise any beneficial effect, whilst it would clearly be superfluous to drive men to lectures which possessed in themselves adequate powers of attraction.

The transition is natural from the student and the studies prescribed by central authority to the tutors and governors set over him at the medical schools, from the subjects to the governments. Medical schools may be divided into three classes. First come the Medical Faculties of the Universities and of Colleges. This class includes the Universities of Cambridge, Durham, Edinburgh, Aberdeen, Glasgow, Dublin, and the unchartered Catholic University of Dublin, and the following Colleges:—King's College, University College, Queen's College, Birmingham; Owen's College, Manchester; Anderson's College, Glasgow; and the Queen's Colleges in Ireland. The second class is composed of proprietary schools founded by private individuals, and not having any primary connexion with a hospital—such, for example, as the School of Medicine for Women and the Ledwich School of Medicine. The third class comprises the schools which have grown up in association with the large hospitals—the majority of the medical schools in the metropolis and the provinces. The schools in connexion with the largest of the metropolitan hospitals—St. Bartholomew's, Guy's, St. Thomas's, and the London Hospitals were not at once inaugurated in a complete form. From a very early period the surgeons to the Royal Hospitals were allowed to take apprentices and pupils. The system of apprenticeship to medical practitioners combined with an examination at one of the Corporations was the ordinary channel of admission to the profession. The earliest mention of an apprentice at St. Thomas' Hospital was on December 31st, 1561. In 1662 students were accustomed to attend the medical and surgical practice at St. Bartholomew's Hospital. In 1703 the Grand Committee of St. Thomas' resolved that no surgeon should have more than three "cubbs," the old name for dressers. The members of the visiting medical and surgical staffs were in the habit of giving instruction to pupils and visitors to the wards. This led to the introduction of clinical lectures. Anatomy began to be taught by lectures and dissections, and set lectures on surgery were given. As the Examining Boards formulated their requirements, the large hospitals made arrangements to meet them. In 1785 the London Hospital set the first example of a complete medical school in connexion with a hospital upon the model of the Medical Faculty of a University. A distinct building was erected at the east end of the hospital at a cost of £2,000. By the exertions of the medical staffs of other hospitals similar arrangements were made with the aid of the

governing bodies of the hospitals. As the number of medical students increased, other schools were formed in connexion with the smaller metropolitan hospitals, and with the infirmaries in some of our larger manufacturing towns—Liverpool, Manchester, Leeds, Sheffield, Bristol, and Newcastle-upon-Tyne. It is erroneous to set down the formation of the Medical Faculty of University College as the starting point of complete medical schools, whatever degree of stimulation it may have imparted to the older establishments. University College was established in February, 1826, by a deed of settlement, for the purpose of affording to young men residing in or resorting to the cities of London and Westminster, &c., adequate opportunities for obtaining literary and scientific education at a moderate expense. £153,000 were raised in shares of £100; land was purchased, and the present College was erected. The institution was placed under the management of a Council of 24, to be chosen annually by the proprietors. In 1836 a charter of incorporation was granted by William IV. An Act of Parliament, which received the Royal assent on the 24th June, 1869, annulled the provisions of the deed and the charter, and reconstituted the College on the following basis:—The three orders of "Governors," "Fellows," and "Life Governors" are termed members of the College. The members are summoned annually to a general meeting in February, and choose a president, vice-presidents, treasurer, and not more than twenty-one, or less than sixteen other members to form a Council for the management of the affairs. Bye-laws are made or altered at general meetings. The Council chooses by ballot seven of its members to form a committee of management. The academic business is in the hands of a Senate, composed of all the professors, together with a president, vice-president, and the head master of the school. The professors are divided into faculties, and each faculty has its dean, and the dean appoints a vice-dean. The twenty-first part of the gross amount of fees (representing the difference between pounds sterling and guineas) paid in a session for the class or classes of any professor or other teacher is first deducted and retained by the College. When after such deduction the fees so paid do not exceed £125, nine-tenths of the amount are paid to the professor or other teacher; when they are above that sum, but not more than £300, the professor or teacher receives £100, and half the remainder; when they are above £300, two-thirds of the amount are paid to the professor or teacher. The arrangement into faculties is similar

to that existing at the Universities, which has also been imitated at the other Colleges.

The control of medical studies rests at the Universities and Colleges in the hands of the professors of the faculty of medicine, either directly or indirectly, alone, or in combination with the professors in the other faculties and University authorities.

At the schools attached to hospitals the nature of the constitution is determined by the relations between the visiting medical staff of the hospital and the lay authorities. At some of the medical schools the entire management is in the hands of the members of the hospital medical and surgical staffs and lecturers. These gentlemen in various proportions form a deliberative and legislative body, called either a Medical Council or a Medical Committee, which frames rules for the guidance of its proceedings and the management of the school. The Council is usually quite distinct from the governing body at the associated hospital. Occasionally other members are imported from other sources. At St. Mary's Hospital a certain number of medical practitioners in the neighbourhood are elected by the medical governors of the hospital. At Guy's the treasurer sits at the board and has the right of appointing the lecturers at the school. At the London Hospital a College Board was formed in 1876, consisting of nine members of the house committee of the hospital, and six members of the Medical Council, and is likely to continue in existence with the medical and lay members in equal proportions.

The voluntary hospitals are managed by a committee, house committee, or weekly board, elected by the governors or formed of governors, and this board, either independently or with the advice of the medical and surgical staff or Council, makes the rules for the welfare and care of the patients in the hospital, determines the number of physicians and surgeons, assistant-physicians, and assistant-surgeons required to attend to the patients in the wards of the hospital and out-patient departments, frames the laws for the subordinate and resident officers, and appoints all such officers for given periods. The appointment of the members of the permanent staff is in the hands of the governors of the hospital (with a few exceptions), but of late years the governors at some of the hospitals have delegated the duty of electing the physicians and surgeons to the small managing committee. This plan is a great improvement on the old plan of election by the general body of governors, for

candidates had to undertake a regular canvass, to print copies of testimonials and send them out broadcast, to hire cabs and bring up outlying voters on the day of election. The contest much resembled a Parliamentary election, and involved the candidates in an expense of £300 or £400 for an honorary appointment. The best man was by no means certain of gaining the day. Now the claims of the candidates are sifted by a small body in communication with the staff or their representatives, and though there is the danger of a single member of a staff acquiring an undue influence and pulling the wires of the influential committee men, yet it is an immense relief to all concerned to get rid of the turmoil, expense, loss of time, vexation, and ill-feeling occasioned by a contested election in the old style. At other hospitals the treasurer has great influence, but it is generally foreseen some time beforehand who will be selected for the next vacancy, the candidate being marked out by merit and distinction for succession to the office. Occasionally some one is passed over who thinks, or whose friends think, that he ought to have been chosen, but if the list of successful candidates at such a hospital as Guy's be scrutinised, it will be seen that all have been men in the front rank. Physicians and surgeons once elected hold office for a specified time, either up to a certain age, such as 60 or 65, or for a certain number of years. When first elected they generally have the title of Assistant-Physicians and Assistant-Surgeons, and have the charge of the patients who attend in the out-patient departments. In 1860 there was a great outcry against the authorities at King's College. By the Act of Incorporation the Council of King's College, which consists of about twenty members, manages the hospital, the Committee of Management of the hospital being merely an economical body. The Council had decided on electing assistant-physicians and assistant-surgeons only for the space of three years, but it now went so far as to inform the existing assistant-physicians and assistant-surgeons that they were only to be eligible for another three years. The three years' election period had been hitherto regarded in the light of a form necessarily to be granted if the duties had been performed. This step did much harm to the Medical School, and several rising men were lost to the institution.

A variable term of service is spent in the out-patient department. Succession to the regular charge of in-patients, and to the titles of physician and surgeon depends upon the occurrence of vacancies

by death, resignation or rotatory retirement. The period of twenty years is allowed at the London Hospital for occupation of the offices of surgeon and physician, and if a junior comes on when these posts have not long been held by the existing occupants, his chance of promotion is not very rosy. He may spend fifteen years in the out-patient department. To ease this onerous service there is a rule at the London Hospital that after seven years an assistant-physician and assistant-surgeon, may drop the prefix assistant, which is a badge of inferiority. Moreover, assistant-physicians and assistant-surgeons have beds assigned to them, either in their own right, or customarily under certain circumstances by the regulations of the hospital or the good-will of their seniors. The possession of the Fellowship of the College of Surgeons is generally made an essential condition of taking the title and office of surgeon. When a physician or surgeon has served his term he becomes consulting physician or consulting surgeon. His office is honorary, carrying neither beds nor good-service pension. He ceases to take any active duty, but he *may* be requested by his colleagues to see a case and give his opinion thereon. So easily are medical servants of public institutions cast aside.

The assistant-physicians and surgeons generally attend at the hospital twice a week to see the out-patients, and they see their in-patients, if they have any, when they please. In the absence of the physicians and surgeons the work is done by the assistant-physicians and assistant-surgeons. The physicians and surgeons see their in-patients regularly on two days a week, "going round the wards" for the purpose, accompanied by the subordinate and resident staff. Each physician usually has a house physician or resident medical officer attached to him, and each surgeon a house surgeon. With the public the house surgeon is the great man at the hospital, the head surgeon and chief operator. He is often heard of in police reports, and the name seems to signify surgeon of the house—*i.e.*, of the whole establishment. Hence, perhaps, the popular idea. No amount of explanation will ever make the public understand that the house surgeon, as well as the house physician, is so called because he lives during his period of office in the house, or that he is a young man who has only just passed his final examination and become qualified. The house surgeons and house physicians carry out the instructions of the surgeons and physicians, and attend to the patients in their absence. All the major operations are performed by the surgeons or assistant-surgeons. House surgeons and dressers

are allowed to remove fingers and toes. House physicians are placed over students who are engaged in taking notes of cases and attend to patients under their directions and the directions of the physicians. These students are termed clinical clerks or ward clerks. Similarly, house surgeons have to look after students who are acting as dressers to the in-patients.

It is the custom at the hospitals for the patients admitted during each week to be placed under the physician or surgeon of the week. Each physician and each surgeon "takes in," as it is termed, in weekly succession. All the accidents coming into the hospital in a particular week are entered under a particular surgeon or his assistant-surgeon, and these officers are supposed to be ready at any time to be summoned to the hospital to see cases of emergency. They have to be "on duty" during their week. Similarly all casual medical cases come under the physician of the week. This is the rule; the modifications of the rule it is not necessary to state. In this way the cases are equally divided amongst the members of the staff. Two or more students live in the hospital to attend under the house surgeon to the accidents. Two or more "take in," as it is called, every week in rotation. Similarly there are medical assistants, resident or non-resident. Midwifery and diseases of women are assigned to an obstetric physician and an assistant obstetric physician with a subordinate staff, consisting of a resident accoucheur and maternity pupils. The maternity pupils attend to the midwifery cases under the supervision of the resident accoucheur, and, if necessary, of the assistant obstetric physician. They are usually advanced pupils who are not dissecting or attending *post mortem* examinations, and the duty is so arranged between them that they must be ready to be called during particular hours or to particular cases. Sometimes they are resident in the hospital, and sometimes non-resident, the practice varying in different hospitals. It is required of all dressers, clerks, medical assistants, and maternity pupils, that they shall be regular in the performance of their work, obedient to instructions, kind and attentive to the patients, civil to their superiors, and well-behaved. The experience to be gained in these offices is very valuable, indeed essential for learning the medical profession, and the loss of such experience is always felt in after-years by those who neglect to profit by it.

At some of the hospitals there are officers called registrars,

medical and surgical. Their duty is to collect and collate the records of the cases treated in the hospital, and to draw up statistical reports for annual publication. If the work is well done, and if the cream of the practice is preserved, the reports are valuable, but too often such reports are not utilised for any higher purpose, nor are the records of the different hospitals ever collated. The registrars see that the dressers and clerks keep proper notes of the cases in the hospitals, for which purpose cards or papers are affixed to frames attached to the patients' beds. Sometimes it is made the duty of the registrar to drill the student in the manner of note-taking and in the mode of examining patients. The student is also instructed by the house surgeon in the details of surgical work, and by the house physician in the details of medical work, and again receives instruction from the surgeons and physicians, or is examined by them at the bedside. A certain number of students are appointed to assist in making *post mortem* examinations. These examinations are conducted usually by members of the staff, who are appointed Pathologists or Assistant Pathologists for the purpose, although it is understood that every physician and surgeon has the right to examine any of his own cases. The assistant students are called *post mortem* clerks, and they hold office for the period required by the Licensing Corporations. At the London Hospital the pathologist receives annually £150 from the house committee, and the assistant-pathologist receives £50.

In England physicians and surgeons usually visit the hospitals about 1 30 or 2 p.m., and occupy about two hours in the wards, the assistant-physicians and assistant-surgeons attending in the out-patient departments at the same hour. Out-patient work may last four or five hours, or only one or two, according to the amount of abuse of charity exemplified at the particular institution. In Ireland, as in Paris, the physicians and surgeons attend in the morning. In Dublin the time is generally from 9 a.m. to 11 a.m., at which hour lectures begin in the medical schools. The physicians and surgeons impart instruction to students and to their dressers and clerks in several ways:—1. Some prefer adhering entirely to the bedside, and either discoursing on the points of particular cases or examining the student on them and on collateral topics. 2. Some have cases brought into the operating theatre or instruction room, taking each separately and making remarks thereon. 3. Some give regular and set lectures, either on a case which is presented

to view, or, 4. On a case recently cured or deceased. Both of these two latter modes of instruction are called clinical lectures. A clinical lecture is properly a lecture delivered at the bedside—in practice it is often a systematic lecture delivered away from the bedside on a case which the students may have neither seen nor heard of. Very often too the discourse is an elaborate discourse intended for publication in a journal, and rather adapted for the edification of practitioners than for the education of the student. There are some advantages in set clinical lectures, but clinical instruction—true bedside teaching to a limited class—is the best method of instruction. Colloquial teaching—frequent repetition—making the student see and feel and reason for himself, are the only ways of conferring lasting benefit.

Good clinical teachers attract students to a hospital. Attraction of students to a hospital affords to the hospital that service of dressers and clerks and maternity pupils which is necessary for the proper working of the hospital, and for attention to the wants of the patients. Doing the work of the hospital publicly in the presence of the students is the best stimulus to the physicians and surgeons to enter thoroughly into the history and nature of their cases. Their opinions on the nature of cases and their treatment are not merely subjected to scrutiny and criticism, correct or more possibly erroneous, but in fatal cases they are read by the light of a careful *post mortem* examination. The successes and the errors of the staff are alike exposed. All this adds immensely to the value of the work done by the medical staff, and greatly benefits individual patients. The poor are served far better than they could be in any other way, and the hospital committee gets work done for it for nothing, for which otherwise they would have to pay a high price. All the pay received by the staff comes from the fees of the students, except in the case of the juniors. At some institutions a small sum—say £40 or £50—is accorded to the seniors for cab-hire. The fees of students are earned by the instruction imparted, and have nothing to do with routine hospital work. The offices of physician and surgeon, therefore, are honorary, so far as the lay authorities are concerned. Formerly the appointment of physician or surgeon was far more valuable than it is at present. It was more valuable directly, because the staff was smaller, hospitals not being so much abused, money was more valuable, and the proportion of fees received consequently greater. It was more valuable indirectly,

because competition was less keen. Fewer consulting physicians and consulting surgeons attached to hospitals existed, and private practice more certainly accrued. It was more valuable directly, because pupils were apprenticed to the hospital staff who received considerable sums of money for a privilege which paved the way for appointments on the staff. It was more valuable indirectly, because practice was not not so much cut up as it now is, and was not abstracted from the general physician and surgeon by the specialist. Special hospitals did not flourish to the same extent.

In return for the work performed by the physicians and surgeons, assistant-physicians and assistant-surgeons, and by pupils attracted by them, the lay authority does what it can for the advancement of the interests of the school. It is far more advantageous for the hospital to have work done by students educated under the immediate eye of the staff, than it would be to take all comers at haphazard from other quarters. Hence it become the interest, as it is often the pleasure, of the lay authority to foster the medical school attached to the hospital, and this it is able to do by erecting the necessary school buildings in the hospital grounds, and maintaining them in repair. Some of the hospitals—Bartholomew's and Guy's, for instance—spend thousands of pounds on the erection and enlargement of school buildings, and either exact no equivalent or impose a small annual payment. The cost of the new school at Bartholomew's has been set down at from £40,000 to £60,000. The London Hospital Medical College was erected in 1854 at a cost of £10,000, and delivered to the staff at a peppercorn rent. About ten years ago an enlargement became necessary, but the hospital not being in flourishing circumstances, the necessary funds were granted on condition that interest should be paid for twenty years. Rent is charged at other hospitals; at St. Thomas' the school has to pay the rates. The hospital authorities often assist by giving scholarships or prizes, or by helping to raise subscriptions for definite objects.

Attached to the hospital are officers elected for the performance of special work. In late years the growth of special hospitals has compelled general hospitals to make provision for special cases. Certain classes of cases are excluded from general hospitals—as, for example, fevers and infectious diseases. At one time contagious diseases were excluded also. Mental diseases are not admitted; cases of consumption are not encouraged. Not many years ago

very little accommodation was given to diseases of the eye or skin. More recently all cases which can conveniently be treated have been admitted and encouraged. It was found that patients with diseases of the eye, ear, and skin, with deformities and other complaints, passed the hospital doors, and sought treatment at institutions specially devoted to those classes of disease. It became impossible to educate the student in all branches of the profession—hence, at the suggestion of the medical staffs, special departments have been established in connexion with general hospitals. In some cases special practitioners have been chosen to do the special work; in others the members of the hospital staff take the duty, doing it often in the morning, so as not to interfere with their regular general work. Most hospitals to which schools are attached have their dental surgeon, their ophthalmic surgeon, and perhaps their aural surgeon. Some have a special chloroformist. To sum up, the hospital medical and surgical staff consists of a certain number of consulting physicians and consulting surgeons—3 to 5 physicians, 3 or 4 surgeons, 3 to 6 assistant physicians, 3 or 4 assistant surgeons, an obstetric physician, an assistant obstetric physician, an ophthalmic surgeon, an aural surgeon, and a dental surgeon. At smaller hospitals the number will not be so great, and the same officer may see both in-patients and out-patients. The numbers of subordinate offices will vary greatly. Each house physician, each house surgeon, and each resident accoucheur—all, as a rule, being qualified practitioners—do duty for at least six months. Dressers remain at work for from three to twelve months, and clinical clerks from three to six months, or more; maternity pupils for three months. Then the assistant physicians and assistant surgeons have clerks and dressers whom they instruct in common diseases, and in dressing common accidents and wounds. It is generally essential for the student to have been clerk to medical out-patients before he can become clerk to medical in-patients, and to have dressed surgical out-patients before he can become dresser to surgical in-patients.

It will afford to the non-medical reader some idea of the number of these junior offices at the larger hospitals if we give the list of pupils' appointments bestowed at Guy's Hospital. In the course of the year there are appointed 6 house physicians, senior and junior, 6 house surgeons, senior and junior, 12 obstetric residents, 24 surgeons' dressers, 18 clinical assistants, 12 dressers in

the eye-wards, 24 *post mortem* clerks, 24 obstetric out-patient clerks, 32 assistant physician's clerks, 12 dental surgeon's dressers, 12 aural surgeon's dressers, 64 medical clinical clerks, 72 or more assistant surgeon's dressers, 72 dressers in the surgery, 80 surgical clinical clerks, 32 assistant surgeon's clerks, 60 extern obstetric assistants, besides clerks in the room for applying electricity. This is a splendid list of appointments, and is paralleled at other large hospitals.

It has been already stated that the school is usually managed by the medical staff of the hospital, who are, in reality, the proprietors, not of the school buildings, which belong generally to the hospital, but of the school itself, its educational appliances, and the good-will of the business. The system in vogue in the appointment of lecturers at the school or college is that the lectureships are given by preference to the members of the staff in the order of seniority. There are some lectureships, such as the lectureships on botany and chemistry, which a medical practitioner is not qualified or not anxious to teach. Such lectureships are necessarily given to men specially devoted to the cultivation of these branches of science, and not on the staff of the hospital. But all subjects which can be taught by the members of the staff are assigned to them—anatomy, physiology, materia medica, pathology, surgery, medicine, and their offshoots. Midwifery and diseases of women and children come under this category. The demonstrators of anatomy who attend in the dissecting-room to teach students their anatomy on the dissected subject, and to show them how to dissect, are young men who have recently passed their examinations, and are anxious to remain at the hospital with a view to obtaining appointments on the staff. The large schools do their best to encourage their own students, and like to choose their future physicians, surgeons, and lecturers from their own men. At the smaller schools the choice is not great enough for this to be done regularly, and good men are attracted from other hospitals.

There are two circumstances which tend to lower the standard of teaching at the medical schools. The first is the number of schools. In the metropolis, where the male students number rather under than over 2,000, and where the number studying anatomy and physiology is about 1,000, there are eleven medical schools, and each school has its separate staff of professors and teachers. Thus each school must have a lecturer on anatomy, a lecturer on physiology,

a lecturer on medicine, a lecturer on surgery, a lecturer on materia medica, a lecturer on chemistry, a lecturer on forensic medicine, a lecturer on midwifery and diseases of women, a lecturer on botany, a teacher of or lecturer on morbid anatomy and pathology, a lecturer on comparative anatomy, a lecturer on dental anatomy and surgery, and two or three demonstrators of human anatomy. At the minimum there must be twelve lecturers and two or three demonstrators, or 132 lecturers or professors in the aggregate. But the number is really much greater. The reckoning has not included the teachers of or lecturers on clinical medicine and clinical surgery, the teacher of histology, the lecturer on ophthalmic medicine and surgery, the lecturer on mental diseases, the lecturer on natural philosophy, the lecturer on diseases of the ear, the lecturer on diseases of the larynx, the lecturer on diseases of the skin, the teacher of practical surgery or minor surgery, the teacher of operative surgery, and the demonstrators of practical physiology—all of whom the medical school may possess, either for ornament or completeness of instruction. The number of additional teachers or lecturers whose services are not absolutely demanded by the examining boards will vary with the resources of the school; but the smallest school in the metropolis has twenty-two chairs, including even metallurgy, and nearly as many professors. Reckoning the same teachers in each of their various capacities, the number of teachers is thirty-three, and the number of full students scarcely greater, for fourteen entered in 1878, and only nine in 1877—an average of one teacher to each pupil. Owing to the same teacher teaching in different capacities, it is difficult to reckon precisely the number of professors and teachers engaged in the medical schools of the metropolis, but the number cannot be very far short of 300, or an average of one teacher to six students. This diffusion of the teaching function causes "a waste and weakness of teaching power and an underpayment of medical professors." It is only at the largest schools that the chairs yield a fair annual income. £300 or £400 a year is the maximum obtainable from the most lucrative chairs; but when entries dwindle down to nine or ten the cost of diagrams for lecture becomes greater than the remuneration afforded. Doubtless there are some advantages to the student in belonging to a small school, as he becomes better acquainted with members of the staff, and receives more individual and personal cultivation; but the advantages direct and indirect only descend to the student—

they do not affect the teacher. Nothing is more dispiriting than lecturing to a very select audience—nothing more calculated to make the performance of the work lifeless and perfunctory. There is no stimulus to exertion—nothing to call forth the powers and energies of the lecturer, or to make him devote time to the preparation of his lectures. Receiving little or nothing for them, he must do other things for his living, and this brings us to the second condition productive of deterioration in the quality of teaching, and that is the selection of professors from a hospital staff. The choice is necessarily limited, but this would not be of consequence if the member of the staff selected could give his whole time to his teaching duties. Instead of this the lectureship is generally either a stepping-stone or a temporary stop-gap until the lecturer can get into practice. Lectureships even on such subjects as natural philosophy and comparative anatomy are accepted for the purpose of getting a footing in the school, or to exclude a stranger. The great hindrance to excellence in any one capacity is the necessity that is felt by a physician or surgeon waiting for practice to do many things for the purpose of earning enough to live on. Gratuitous hospital appointments he must fill at a considerable sacrifice of time. He must have his general hospital, and perhaps one or two special hospitals; he must do a little demonstrating and tutoring, and a little lecturing, a little private practice, a little anonymous scribbling, and a little examining, and he must obtain, if he can, some appointment, such as an insurance office, which shall yield at least £100 a year. Besides this, he must bring his name forward at societies and in the journals. From the time he rises to the time he retires to rest his whole day is parcelled out amongst these different occupations, and what prospect is there for him to excel either as a teacher or practitioner, original investigator or writer? An iron frame both of mind and body is demanded in this struggle for existence. By concentration alone can excellence be obtained, but the whole system at present in vogue leads to diffusion and loss of strength.

Most of the medical schools have an officer elected from their number by the hospital staff called the dean, and the dean is often assisted by a vice-dean. The dean exercises a general superintendence in every department, acts as the ambassador of the staff with the lay authority, conducts the correspondence, and communicates with parents and guardians. He is the official representative of

his colleagues in the interval between their meetings. A paid secretary may also be engaged to do office work and act under the dean. At the London Hospital the combined medical and lay committee or College Board employed first a secretary, and latterly a principal assisted by a clerk, for the purpose of developing the medical school.

It has been found that medical education cannot be carried on exclusively by means of systematic lectures, but that tutorial instruction and examinations are needed to elicit the powers of the student, give him confidence, and make him apply himself regularly to his work. Examinations often take the place of lectures, or an admixture of the two plans is adopted. Written and *vivâ voce* examinations are held in some schools at the termination of each session or oftener, and it has become the custom to make students undergo what are called test examinations before they are allowed to have their schedules signed and present themselves at the Examining Boards. This necessity has been imposed on schools by the publication yearly by the Licensing Corporations of the results of examinations. The number of candidates belonging to each school passed or plucked is set down, and it is the aim of a school to stand well in the list. True it is that such a list does not afford much criterion of efficiency in the teaching at a school owing to disturbing causes which figures cannot explain, but it is thought that percentages may weigh with outside observers who have pupils to send to London to be educated. These test examinations are an infinite trouble to the teacher and very beneficial, though irksome, to the student. However disagreeable it may be to a student to be kept back from presenting himself at the central examination, the preliminary test examination shows him his deficiencies, and often saves him from a certain reference to his studies which would be a source of annoyance both to himself and his friends. Nevertheless, both students and friends are in the habit of grumbling at the benefit thus conferred.

At all schools students are under a certain amount of supervision and discipline. On entering the school they are required to sign an agreement to conform to the rules and to submit to penalties for misconduct. An idle and noisy student is soon recognised, and many who think that their foolish and undisciplined conduct does them no injury find out their error when they apply for hospital appointments.

All the schools give prizes. Twenty years ago the favourite plan was to confer class prizes in every subject—in each subject a gold or silver medal and an honorary certificate. At the smaller schools it was frequently difficult to find students to compete for these distinctions, especially when it was known beforehand that one hard-working man was certain to carry all before him. There was a rule at one school that a medal should not be awarded unless there were two competitors, and it became incumbent on the gentleman destined to secure the medal to bring in a fellow-student to write for the honorary certificate, and to supply him with the material for answering the questions proposed. At the suggestion of one or more of the Examining Boards or members of the same, some of the schools did away with the medal and certificate system, and left one or two prizes only remaining. On the ruins of the medal system sprang up the scholarship and money prize system, which is now in vogue. Scholarships to a considerable amount are awarded annually, sometimes in one subject, but more commonly in a group of subjects. Scholarships in the subjects of preliminary education and in the natural sciences are fashionable. They are given before entrance at the school, and encourage both a proficiency beneficial to the candidate and a payment of fees beneficial to the school. Scholarships in the subjects of study in the first and second years are also given, scholarships in clinical medicine, clinical surgery, and clinical obstetrics, and special scholarships and exhibitions and medals founded by some former pupil or benefactor to the school. The amount of money given in this way is considerable. At St. Bartholomew's, nearly £700 are given away every year, a sacrifice of six full entries ; but what are six entries when 140 can be secured ? Guy's runs its money bait up to nearly £500. Other schools follow according to their means—yea, and beyond their means. The smallest of the metropolitan schools enlarges its already overburdening expenses by offering more than £200 in prizes. Such a school has a great future before it.

Hospital schools, unable to offer any very attractive prize programme, wisely lay stress on the great value of the appointments at the hospital—"the opportunities for practical study far outweighing any number of scholarships and prizes." The heaviest stakes are set down at the entrance of the student, the scholarships in subsequent years becoming small by degrees and beautifully less. If a £50 scholarship is offered at entrance, £5 are enough for the

terminal year, for the student will have wisely discovered before he has finished his curriculum that the virtue of acquiring knowledge is its own great reward.

It is quite impossible to enter into the individual merits of each school. Distinctive and excellent features each possesses, nor is any light hidden under a bushel. St. Bartholomew's is well known for its general merits, its museum and collegiate establishment. The wax models in the museum of Guy's are familiar to every one, and no school has more carefully elaborated its practical resources. University College, with a small hospital, has developed its teaching capacities to the utmost, and deserves the reputation it enjoys for the excellence of its educational system. The London Hospital is known for the extent of its practical opportunities. King's College has a collegiate establishment and has secured the services of the great scientific surgeon of the day. A few years ago, St. Mary's Hospital put forth its powers, and a series of distinguished men delivered excellent addresses at prize distributions. If the merits of each metropolitan and provincial school are not more particularly displayed in this Essay it is because it is impossible for any single individual to be acquainted with the details, or to do justice to their comparative claims. The Universities of Scotland need no commendation, and the Irish schools show their best records in the results of examinations. The school of the College of Surgeons is excellently appointed; and the Ledwich School has gained a reputation for the great attention paid to the teaching of anatomy, the dissecting-room being open from 7 a.m. to 10 p.m., and a teacher being present during the greater part of the time. Even to make these few observations appears invidious; the proper province of the essayist is to display the general characteristics of medical education in the United Kingdom, and to suggest improvements therein.

A few topics remain. A marked tendency in the current of medical education is to flow in the direction of practical study. Teachers and examiners alike are coming to recognise the fact that students must carry out personally all the manipulations and processes necessary to give them a real knowledge of the subjects of medical education. When the author entered at a medical school, the only things which the student was required to do for himself, besides dissecting, were dressing patients, using the stethoscope, and attending a course of practical chemistry, which consisted chiefly in glass-blowing and the use of the blow-pipe. All else

was optional. A few voluntary lectures were given on the microscope, but all the microscopical work which the student had to do was to look at one or two specimens sent round the class by the lecturer on physiology. There were no classes held for systematic instruction in operative surgery, in bandaging and surgical manipulations, the use of instruments, no practical histology—no genuine work in the laboratory. The requirements of the Examining Boards were not such as to demand much more than a limited theoretical acquaintance with subjects of study, recognition by sight of the objects presented by a few bones, and a practica lknowledge of drugs. A gradual change is taking place in the whole field of education. Possibly students are not such good dissectors as they were, and they may be tempted to cram by the light of prepared specimens which were not in existence twenty years ago, but anatomy is not the whole of medical study, however important, and the method of dissection is, as it were, being extended to other subjects. Anyone who is acquainted with the teaching at Cambridge in the scientific subjects of study will know what is meant. Contrast the teaching of physiology at Cambridge with the teaching at some of the London schools, and how greatly will the latter suffer by comparison. A student at Cambridge will prepare for himself such a substance as *glycogen*, and learn practically the tests by which it is recognised. In London the student will hear about the substance in the lecture-theatre, and will be asked at an examination to write down on paper the distinctive characters. In Cambridge students will be shown how to dissect snails and cuttle-fishes ; in London they will look at them undissected darkly through thick glass bottles. A school like that at Cambridge is the little leaven which must leaven in time the whole lump. A few of the schools in London may imitate Cambridge and give special instruction to advanced students, but as a rule practical physiology in London means cutting up little bits of ordinary tissues and preparing sections for examination under the microscope, and it means looking at specimens supplied by the teacher, and listening to a few explanatory comments.

The best medical school is the school which does not cultivate one branch of study only, but adopts a regular system of training in all branches of medical education. It is the school which arranges and maps out the work of the student from the hour of his entrance to the hour of his departure—which sees that

he passes with equal steps through all the practical work necessary for his complete equipment—which tests and examines him from time to time to ascertain that he is making proper progress—which drills him in the methods of clinical working, educes his faculties and powers of observation, prepares him for his examinations, and submits him to that due sequence and proportion of instruction, theoretical and practical, which shall send him forth not only as a trustworthy practitioner according to existing rules and fashions of treatment, but capable of utilising opportunities for the making of new knowledge, and advancing beyond the lines of established rules. The paraphernalia of clinical wards adopted at some schools, with set clinical lectures delivered by the physicians and surgeons in the winter, and the assistant physicians and assistant surgeons in the summer, or of regular Professors of Clinical Medicine or Clinical Surgery, with their discourses on special topics peculiarly interesting to themselves, and published in the journals, may be attended with some advantages, but they can have little or no value in comparison with the painstaking individual training in the modes of examining patients and their excretions, and of note-taking, which can only be imparted to groups of five or six students at the bedside, and in the rooms devoted to the details of clinical work. Individual attention to the wants of each student is required. In surgery the application of anatomy to practise on the living person, demonstration of the manipulations necessary for the reduction of dislocations, for the setting of fractures, the performance of operations, and the use of instruments and appliances, and the details of surgical examination and diagnosis, have to be displayed by the teacher. In medicine the investigation and record of symptoms, physical methods of diagnosis, examination of morbid products chemically and microscopically, and the principles of therapeutics, must be methodically taught.

Most of the schools are in advance of the Examining Boards in the amount of attention which is paid to special classes of diseases. The special departments connected with most of the educational hospitals for the treatment of eye, ear, skin, and throat diseases, and for orthopædic surgery, are generally manned by the younger and most enterprising members of the hospital staff, whose pride, pleasure, and interest converge towards the direction of their energies to the task of practical demonstration to inquiring students

who, in these matters, are not driven by the *vis à tergo* of central regulation, or drawn by the *vis à fronte* of prospective examination. Hence we find ophthalmic surgery taught both by lectures and cases in the ophthalmic out-patient departments and the eye wards of the general hospitals. Aural surgery has attention paid to it at all the London and some of the provincial schools. Special teaching in diagnosis and treatment of throat diseases and use of the laryngoscope is offered at ten at least of the metropolitan schools, and occasionally in the provincial. A similar remark applies to diseases of the skin, which are cultivated by means of clinical observations on cases, demonstrations and formal lectures, illustrated with patients, wax models, and diagrams. Only a few of the hospitals give special courses or systematic instruction in orthopædic surgery. Mental diseases are not admitted into general hospitals, but the schools often make special arrangements with neighbouring establishments for the alienated, which secure for their students the privilege of attending the practice at specified hours, and in London Bethlem and St. Luke's Hospital may be visited. At the same time lectures on psychological medicine are delivered, or demonstrations of the various forms of insanity are given at some of the metropolitan and provincial schools. Public health is not fully cultivated. A few of the schools make it a separate course; others combine the subject in a very fragmentary way with forensic medicine. Only one metropolitan school gives practical instruction in the chemical and microscopical examination of air, water, and food in a laboratory.

The direction of the student's studies is often nominally given to a dean or vice-dean, or the warden of a college. At some schools special classes are held for special examinations. One or two of the schools have gained established repute for the care and trouble taken to train men for the University of London, and obtain their reward in the position attained by their alumni in the honour lists. It is the special duty of demonstrators to coach men for the ordinary ordeals of the College of Surgeons. At a few of the schools there is an officer called the college tutor, designed to supersede the grinder. The duties of this functionary, if properly performed, are of no light description, for on his shoulders rests the burden of preparing general students for their examinations, and directing their studies profitably. Occasionally every medical topic has been assigned to the omniscient tutor, but it is generally recog-

nised that one individual, unless an extraordinary person (in which case he is not likely to continue a tutorial grinder at a small remuneration), is quite unequal to preparing all comers in every necessary subject. Hence a limitation of area of tuition is adopted, or else the functions of a tutor are undertaken by a tutorial staff, dividing the educational subjects between them.

The supply of anatomical subjects for the purpose of dissection in the medical schools is regulated by the provisions of the Anatomy Acts. Warburton's Act (2 & 3 Wm. IV., c. 75), "an Act for Regulating Schools of Anatomy," was passed in 1832. Before that period bodies were obtained for dissection in one of three ways—1. The bodies of persons executed for murder were assigned to the schools. 2. The churchyards were robbed of their recently buried dead by resurrection men and students. 3. The demand for subjects led to a supply in an unforeseen and horrible way. Poor and helpless persons were murdered by wretches like Burke and Hare, and their bodies were sold to the schools by the murderers. The discovery of the crimes of Burke and Hare was the immediate cause of the passing of the Anatomy Act. The preamble assigns as reasons for the enactment that "a knowledge of the causes and nature of sundry diseases which affect the body, and of the best methods of treating and curing such diseases, and of healing and repairing divers wounds and injuries to which the human frame is liable, cannot be acquired without the aid of anatomical examination;" that "the legal supply of human bodies for such anatomical examination is insufficient fully to provide the means of such knowledge;" and that, "in order to supply human bodies for such purposes, divers great and grievous crimes have been committed, and lately murder, for the single object of selling for such purposes the bodies of the persons so murdered;" and that "it is highly expedient to give protection, under certain regulations, to the study and practice of anatomy, and to prevent, as far as may be, such great and grievous crimes and murder as aforesaid."

The Act provides for the appointment of Inspectors of Anatomy by the Secretary of State, who is to assign districts to the Inspectors. The Inspectors are required to make returns of the subjects supplied for anatomical examination, and to inspect places where anatomy is practised, or intended to be practised. The salaries of Inspectors are fixed at a hundred pounds, with proper allowances for office expenses—the sums paid to be charged on the Consoli-

dated Fund, and an annual return of such salaries and allowances must be made to Parliament. "Persons (with the exception of undertakers or other party intrusted with the body for the purpose only of interment) having lawful charge of a body of a deceased person may permit it to undergo anatomical examination, unless either such person expressed his desire either in writing at any time during his life, or verbally in the presence of two or more witnesses during the illness whereof he died, that his body after death might not undergo such examination, or unless the surviving husband or wife, or any known relative of the deceased person, shall require the body to be interred without such examination." Bodies must not be removed for anatomical examination until 48 hours after death, and until 24 hours' notice to the Inspector of Anatomy for the district, or without a certificate of death. This certificate must be delivered, together with the body, to the party receiving the same for anatomical examination. Medical men or anatomical teachers who desire to receive bodies must apply for and obtain a licence from the Secretary of State. Within 24 hours after receiving a body for anatomical examination, the licensed person must send to the Inspector of Anatomy the death certificate and a return stating the day and hour at which the body was received, the person from whom it was received, the surname and Christian name, age, last place of abode, sex, and date and place of death of the person. The licensed person must inform the Secretary of State at what place he intends to teach or practise anatomy, at least a week before he receives the first body for such purpose. Provision is made in the Act for the decent removal of bodies, and for their decent interment. A certificate of burial must be sent to the Inspector within six weeks after the receipt of the body. By the Amending Act (34 Vict., c. 16), 1871, the time has been extended to *within* eight weeks. The Inspector of Anatomy has power to grant an extension of the term. Warburton's Act repeals the provision of the Act 9 Geo. IV., c. 31, enacting that the bodies of murderers after execution should either be dissected or hung in chains as the Court might think fit. Offences against the Act are punishable either by three months' imprisonment or a fine not exceeding fifty pounds. The Inspector of Anatomy in London has introduced a system of warrants for the orderly conduct of affairs. He does his best to distribute subjects equally to the schools.

The Act has worked exceedingly well and provided the schools with a good supply of anatomical subjects. The guardians of workhouses and the managers of sick asylums and hospitals have in many cases assigned to licensed teachers of anatomy, or to the Inspectors of Anatomy, unclaimed bodies of paupers, but in other cases less enlightened authorities have declined to do so. An ill-advised effort has been lately made to prevent the appropriation of the bodies of friendless paupers and lunatics to anatomical objects, the immediate Christian burial of their bodies being regarded as of more importance than the proper education of medical men and the interests of the sick, who benefit by the anatomical knowledge of their attendants. To interfere with and stop dissection would be one of the greatest acts of folly which any person in authority could commit. It would be criminal folly, for not only would it eventuate in body-snatching, and perhaps a renewal of atrocious villainy, like that for which Burke ~~and Hare~~ suffered the extreme penalty of the law, but it would lower the standard of knowledge among medical practitioners so seriously as to endanger the safety of the public. The public would be the chief sufferers, but the work of medical education would be made more difficult, expensive, and tedious, for unless the Examining Boards relaxed their rules and diminished the amount of their anatomical requirements, students would be driven to the Continent to learn anatomy and to dissect the human body..

Medical education has been comparatively inexpensive. The fees payable at the schools vary in amount, ranging from about £80 to £140. In 1878 some of the London schools raised the fees twenty-five per cent. In addition to school fees, from £5 to £10 have to be paid for dissection; and there is the expense of instruments and dissecting dress, pocket case of surgical instruments; microscope, stethoscope, thermometer, &c. The preliminary examination costs £1 or £2, and the professional examinations from £35 to £40. Exclusively of living and dress, personal expenses, and rent of rooms, about £200 would cover the necessary outlay until the coveted qualifications are obtained.

It may be useful to compare the English system of medical education with the systems of France and Germany. In France everything is under State control. Degrees and diplomas in all the faculties—medicine, law, science, and literature—are conferred under regulations prescribed by Government. Medical degrees are

given by the University of France, and the University comprises the four Faculties of Medicine of Paris, Montpellier, Nancy, and Lyons. Each of the faculties has the power to grant degrees under the central regulations. Medical education is carried on in the faculties mentioned, in the *Écoles de plein Exercise* at Nantes, Marseilles, Bordeaux, and Toulouse, where a full course of instruction is given, and at the preparatory schools of Alger, Arras, Angers, Amiens, Besançon, Caen, Clermont, Dijon, Grenoble, Limoges, Lille, Nancy, Poitiers, Reims, Rennes, Rouen, and Tours, where medical students may receive a portion of their education. In Paris there are no separate schools attached to the different hospitals, but everything is centralised in one school, known as the School of Medicine. There is a single staff of Professors and Deputy Professors, or Aggregés. The latter teach in the absence of the Professors and deliver supplementary courses. There is a splendid library, and there are two museums. At the School of Medicine there is one dissecting-room. One lecture-theatre served a few years ago for all the students in Paris, who embrace various nationalities. In 1867 the professional staff consisted of twenty-six Professors and thirty-nine Aggregés. The salary of the Professor was about £400 a-year, and that of the Aggregé, £120. Thirty-three courses of lectures, including clinical lectures, were delivered annually. There were four regular Professors of Clinical Medicine, four of Clinical Surgery, and one of Clinical Obstetrics. At the present time there is a single Professor for each of the following subjects :—1. Anatomy. 2. Histology. 3. Physiology. 4. Medical Chemistry. 5. Natural History. 6. Medical Physics. 7. Pharmacology. 8. External Pathology or Surgery. 9. Practical Surgery. 10. Materia Medica and Therapeutics. 11. Pathological Anatomy. 12. Midwifery. 13. Hygiene. 14. Forensic Medicine. 15. General Pathology and Therapeutics. 16. Comparative and Experimental Medicine. 17. Clinical Midwifery. 18. History of Medicine. 19. Diseases of the Mind and Nervous System. There are two Professors of Internal Pathology and Medicine ; four Professors of Clinical Medicine ; and four Professors of Clinical Surgery, or twenty-nine in all. Supplementary courses are given on special subjects—diseases of children, diseases of the skin, ophthalmology, and venereal diseases. There are laboratories with only a limited accommodation for normal histology, physiology, pathological anatomy, experimental pathology,

therapeutics, biological chemistry, and pharmacology. Instruction may also be obtained at the College of France, where a course on experimental medicine and a course on general anatomy are given, and where there is a physiological laboratory open to persons with sufficient physiological knowledge, who enter their names with the secretary of the faculty of sciences.

The lectures are attended by immense classes. One peculiarity of the French lectures used to be the entire absence of diagrams, even for anatomy. All the hospitals are freely open for clinical instruction, and the student can attend where he pleases. The expenses of the school have been defrayed by Government grant and by the fees of students for inscriptions, registrations, examinations, and diplomas and certificates. The winter session extends from November to March, and the summer from March to August. Students in the faculties desirous of obtaining a degree in Medicine of the University of France must have attained before entrance on medical studies the age of 18 years, and must produce certificates of birth and personal respectability and good conduct. They must enter in November and lodge the certificates with the secretary, and must also possess and produce the diploma of Bachelier-ès-Lettres obtained from one of the Facultés-des-Lettres in France (of which there were 17, 1 at Paris and 16 in provincial towns). The examinations for the Bachelier-ès-Lettres comprised Latin composition, Latin translation, and French composition by written papers, and an oral examination on a Latin, French, and Greek author, with incidental questions in history and literature, philosophy, modern history and geography, algebra, geometry, cosmography, physics and chemistry—an examination which is about equivalent to the matriculation examination at the University of London. The degree of Bachelier-ès-Sciences is also required, but hitherto it has not been necessary to produce the diploma until the third inscription. This diploma is granted by the Facultés-des-Sciences, which are alike in number and in local habitation to the Facultés-des-Lettres. The examination for the diploma comprised a composition on a subject selected from the prescribed course in the physical sciences, and oral examinations in mathematics, one modern language (German, English, Italian, Spanish), and the physical sciences (chemistry and natural philosophy). The course of study for the degree of Doctor of Medicine extends over four years, and there has hitherto been an examination at the end of each year,

the examinations at the end of the first three years being called the *examens de fin d'année*, and the last, which was divided into five parts, the *examens du doctorat* or *examens de reception*. Recently the *examens de fin d'année* have been ordered to cease after November, 1879, and five examinations with defence of a thesis have been prescribed:—1st examination—Physics, chemistry, and medical natural history. 2nd examination—First part, anatomy and histology; second part, physiology. 3rd examination—First part, external pathology (surgery), midwifery, operative surgery; second part, internal pathology or medicine and general pathology. 4th examination—Hygiene, legal medicine, therapeutics, materia medica, and pharmacology. 5th examination—First part, clinical surgery and obstetrics; second part, clinical medicine, practical demonstrations in pathological anatomy, and a thesis on a subject chosen by the candidate.

When the student lodges his papers with the secretary he enters his name in a register, and he receives a *carte d'inscription*. Sixteen inscriptions must be taken out, one at the end of every quarter. Practical work in the laboratory, dissection, and residence near the hospitals for not less than two years, are to be obligatory. The fees to be paid for the degree of Doctor of Medicine amount in all to 1,360 francs. Sixteen inscriptions, at 32 francs 50 centimes each, cost 520 francs; eight examinations, at 30 francs, cost 240 francs; eight certificates of proficiency, at 25 francs each, cost 200 francs; expenses of materials for practical study—first year, 60 francs, second and third years, each 40 francs—cost 160 francs. Thesis costs 100 francs, certificate of proficiency 40 francs, and diploma 100 francs. Fees paid by the pupils of the Faculties are to go to the Public Treasury. The fees paid for inscriptions and for practical work by the pupils of the *Écoles de plein Exercise* and the preparatory schools are to go to the Municipal Treasury.

Election to the offices of Hospital Physician and Hospital Surgeon and to the subordinate offices of Interne and Externe to the Hospitals is by public competition or *concours*. Aggregés are appointed by *concours*, Professors are selected by the Minister from a list demanded from the Faculty or from doctors 30 years of age. If not an Aggregé, the candidate must have given lectures for two years either as a public or an authorised private teacher.

The foregoing sketch will show how widely different are the systems pursued in Paris and in London. In Paris 1 school of

medicine, 1 staff of professors, 1 group of laboratories and museums, lecture theatre and dissecting-room, free professional instruction, free clinical teaching, selection of hospitals left to the choice of the student, 8 to 12 examinations, appointment of teachers and hospital medical officers by severe public and open competition, State regulation and patronage, responsibility to the State, and centralisation, are the main characteristics. In London, 11 schools, 11 staffs of professors and assistants, with 11 separate courses on each subject, 11 sets of offices and school buildings with their lecture theatres and laboratories, each school a close borough (the professorships being open almost exclusively to members of the staff of the hospital to which the school is attached, and the lectures only open to the particular students belonging to the school), exclusive clinical teaching for the school pupils, hospitals open only on sufferance to pupils of other schools, 3 to 5 examinations, appointment of hospital staffs, without competition, by the lay authorities of the hospital through private influence or favour leavened by recommendation of future colleagues, entire absence of State patronage and control, no central supervision or visitation, subdivision of labour, and diffusion to such a degree of attenuation that 1 professor or teacher may be regarded as allotted to from 1 or 2 to 6 students.

In Germany again the scene changes. The system is a university system. There are 21 Universities with 1,250 salaried Professors, and the annual expense amounts to £600,000—about half of the Professors and half of the money being devoted to medical and allied sciences. Each University has its staff of Professors paid by means of a fixed salary from Government, and by the fees of students. The Professors are chosen by the State Minister, one or two candidates being recommended by the faculty of the University. The salaries of Professors paid by Government amount to about £300 or £400, but in some cases where a very distinguished man has to be secured much more may be given, so that with the income from fees Professorships afford a very comfortable provision. At the end of 30 years' service the Professor may retire on a pension. The whole time of the Professor is devoted to his work. Besides the Professors there are extraordinary or assistant Professors and privat-docents. There are no independent Medical Schools, but the privat-docents deliver short "extra mural" courses to pupils. The Universities confer the academic title of Doctor. Besides the examinations at the Universities for the Doctor's degree there is a

State examination conducted by a Central Board. The successful candidate takes the title of physician (Arzt). The cost of the State examination is about half that incurred at the University, and the examination is more exclusively practical. The poorer students who are looking forward only to rural practice pass the State examination only—the others and the majority pass both at the University and Central Board. Anyone may now practice in Germany with or without a diploma, but the use of the titles Physician and Doctor are only allowed to those who have obtained them by examination at the Central Board and at a University. Unqualified practice is restrained by the penalties, fine, and imprisonment inflicted for mishaps. The inferior grade of practitioners, specially provided for the service of the poorer classes in the rural districts, has been abolished.

In Germany the State spares no expense, either to secure distinguished men for the Professorships or in building and furnishing laboratories and institutes for investigation and experiment. To add to the stock of scientific knowledge is as much the aim of the State as to ensure that existing knowledge shall be efficiently imparted. That the former object is gained is proved by the world-wide fame of many of the Continental Professors, and by the fact that a large proportion of our new physiological, pathological, and scientific knowledge comes from Germany. In our own country, even in some of the seats of learning, scientific investigation is discouraged. The State does nothing but pass Acts which are obstacles to the making of new knowledge and drive discovery to the Continent, and sanction the misappropriation of endowments intended for the diffusion of medical knowledge and for the promotion of medicine as a science. All this is managed much better in Germany and in France. But questions of great importance and great interest—questions which it is impossible for the author to answer—are these:—Are medical men generally in France or Germany better educated than in Great Britain and Ireland? Do they display more culture, more scientific knowledge, and are they more efficient as practitioners of medicine and surgery? A satisfactory reply to these questions would be of great assistance in enabling educational reformers to determine what features of our educational system should be retained, and what new methods and conditions should be introduced to remedy its defects.

HOSPITALS.

The hospitals of the United Kingdom are divisible into two primary classes.

1. The hospitals and dispensaries supported by voluntary endowments and contributions from private individuals.

2. The State hospitals and dispensaries.

The voluntary hospitals comprise 3 distinct groups of institutions—

(*a*) General hospitals and dispensaries, including cottage hospitals, (*b*) special hospitals and dispensaries, and (*c*) provident dispensaries.

This subject is so vast that, in the first instance, attention will be directed to the metropolis, the design being chiefly to explain the main features of the system. In London there are 16 general hospitals, exclusive of the Poplar Hospital for Accidents, the Seaman's Hospital at Greenwich, and the Homœopathic Hospital, Temperance Hospital, and St. Raphael's (Roman Catholic) Hospital for Men, which will be reckoned among the special hospitals.

The general dispensaries are 45 in number.

The special hospitals comprise—1 for fever, 260 beds; 1 for small-pox, 108 beds; 2 for *cancer*, containing together 110 beds; 7 for *children* only, 6 containing 488 beds; 4 for *women* and *children* (more especially for children), containing 147 beds; 3 for *women* only, with 104 beds; 4 for the *chest*, containing 465 beds (an infirmary for the *chest* and *throat* not returning any beds to the Medical Directory is not reckoned); 2 for the *nervous system*, with 120 beds; 1 for *hip disease in children*, with 70 beds; 3 for incurables, 2 with 191 beds (the third makes no return of beds); 1 for cripples, with 47 beds; 1 for invalids, with 30 beds; 1 for fistula and the rectum, with 50 beds; 2 lock hospitals, 1 for males and the other for females, with 208 beds; 3 lying-in hospitals, 2 with 75 beds (no return from the third); 6 for the eye, with 196 beds in 5 (no return from the other); 3 orthopædic hospitals, with 95 beds; 3 for the skin, with 33 beds; 1 for stone and diseases of the urinary organs, with 16 beds; 2 for the throat, with 46 beds; 2 dental hospitals (no return of beds); 1 for the heart and paralysis, with 20 beds; 1 temperance hospital, with 17 beds; 1 hospital for accidents only, with 50 beds; 2 hospitals for men—1 for seamen, with 300 beds, and 1 (Roman Catholic) for men; and 1 homœo-

pathic hospital. Besides these, there are 3 ear dispensaries, 1 dispensary for the chest, and 1 infirmary for the chest and throat, 1 dispensary for children, 2 dispensaries for the skin, and 1 dispensary for the throat, chest, and ear, making a total of 68 special institutions.

The provident dispensaries are about 29 in number.

*General Hospitals in London.*

| Name | Number of Patients in one year | | Total number of Beds | Beds | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | In-patients | Out-patients and casualties | | Medical | Surgical | In Eye Wards | For Women | For Children | For other purposes |
| St. Bartholomew's | 6,000 | 140,000 | 676 | 227 | 332 | 26 | 20 | – | 81 * |
| Charing Cross - | 1,500 | 15,000 | 180 | – | – | – | – | – | – |
| Guy's - - | 5,500 | 80,000 | 690 | – | – | 50† | – | – | – |
| King's - - | 1,690 | 31,000 | 170 in use | – | – | – | – | – | – |
| London - - | 6,000 | 45,000 | 800 | 300 | 334 | 12‡ | 26 | 68 | 60 § |
| Middlesex - | 2,250 | 20,000 | 310 | 120 | 185 | – | – | – | 33 ‖ |
| St. George's - | 3,000? | 18,000 | 353 | 148 | 205 | – | – | – | – |
| St. Mary's - | 2,000 | 14,000 | 190 | 88 | 102 | – | 2 wards | 1 ward | – |
| St. Thomas' - | 3,400 | 70,000 | 572 | 180 | 230 | – | – | – | – |
| University College | 1,400? | 17,000 | 150 | 66 | 84 | – | – | – | – |
| Westminster - | 2,000 | 30,000 | 215 | – | – | – | – | – | – |
| German Hospital - | 1,400 | 16,000 | 125 | – | – | – | – | – | – |
| Great Northern - | 360 | 24,000 | 30 | – | – | – | – | – | – |
| Metropolitan Free | 400? | 38,000 | 40 | – | – | – | – | – | – |
| Royal Free - | 1,300 | 25,000 | 150 | – | – | – | – | – | – |
| West London - | 500 | 24,000 | 60 | – | – | – | – | – | – |
| Total - | 38,700 | 607,000 | 4,711 | – | – | – | – | – | – |

* Venereal.
† 2,500 ophthalmic out-patients.
‡ 1,740 out-patients.
§ Out-door medical and surgical.
‖ Cancer.

*Special Hospitals in London.*

| Name | Number of Patients in one year | | Beds |
|---|---|---|---|
| | In-patients | Out-patients | |
| Cancer Hospital, Brompton | 284 | 593 | 70 |
| St. Saviour's Cancer Hospital, Fulham | 94 | 300 | 40 |
| Belgrave Hospital for Children | 112 | 1,042 | 20 |
| Cheyne Hospital, Chelsea, for Children | — | — | 32 |
| East London Children's Hospital | 645 | 6,823 | 90 |
| Evelina Hospital for Sick Children | 355 | 5,436 | 100 |
| Great Ormond-st. Hospital for Sick Children | 927 | 9,872 | 156 |
| North-Eastern Hospital for Children | 330 | 13,308 | 30 |
| Victoria Hospital for Sick Children | 400 | 20,438 | 60 |
| *Consumption.* | | | |
| City of London Hospital for Diseases of the Chest | 819 | 14,276 | 164 |
| Hospital for Consumption and Diseases of the Chest | 1,222 | 11,758 | 210 |
| North London Hospital for Consumption | 271 | 8,561 | 35 |
| *Chest and Consumption.* | | | |
| Royal Hospital for Diseases of the Chest | 165 | 5,642 | 26 |
| *Nervous System.* | | | |
| Hospital for Epilepsy and Paralysis, &c. | 65 | 5,858 | 30 |
| National Hospital for the Paralysed and the Epileptic | — | — | 90 |
| *Fever.* | | | |
| London Fever Hospital | — | — | 260 |
| *Fistula and Rectum.* | | | |
| St. Mark's Hospital for Fistula and other Diseases of the Rectum | 190 | 2,147 | 50 |
| *Hip Disease.* | | | |
| Hospital for Hip Disease in Childhood | 132 | — | 70 |
| | 6,011 | 106,054 | 1,533 |

*Special Hospitals in London*—con.

| Name | Number of Patients in one year | | Beds |
|---|---|---|---|
| | In-patients | Out-patients | |
| Brought forward - - | 6,011 | 106,054 | 1,533 |
| *Incurables.* | | | |
| British Home - - - - | 57 | Annuitants, 182 | — |
| Home for Incurable and Infirm Women - | — | — | 31 |
| Royal Hospital for Incurables - - | 165 for life | 342 life pensioners | 160 |
| Cripples' Home - - - - | 47 | — | 47 |
| Invalid Asylum - - - - | 331 | — | 30 |
| *Lock Hospitals.* | | | |
| Lock Hospital and Asylum, Female | 766 | 21,279 | 188 |
| ,, ,, Male - | | | 20 |
| *Lying-in Hospitals.* | | | |
| British Lying-in Hospital - - - | 160 | 600 | 25 |
| City of London - - - - | 406 | 829 | — |
| Queen Charlotte - - - - | 466 | 638 | 50 |
| *Ophthalmic.* | | | |
| Central London - - - - | — | 6,000 patients | — |
| Royal London - - - - | 1,400 | 20,730 | 100 |
| Royal South London - - - | — | 5,045 patients | 14 |
| Royal Westminster Ophthalmic - - | 420 | 9,500 | 50 |
| Western Eye - - - - | — | 25,700 patients | 12 |
| Western Ophthalmic - - - | 44 | 1,677 | 20 |
| *Orthopædic.* | | | |
| City Orthopædic - - - - | — | 2,000 patients | 24 |
| National Orthopædic - - - | 86 | 2,695 | 26 |
| Royal Orthopædic - - - - | — | 1,400 patients | 45 |
| | 10,359 | 204,662 | 2,375 |

*Special Hospitals in London*—con.

| Name | Number of Patients in one year | | Beds |
|---|---|---|---|
| | In-patients | Out-patients | |
| Brought forward - - | 10,359 | 204,662 | 2,375 |
| *Skin.* | | | |
| British Hospital - - - - | — | 5,217 patients | 12 |
| Hospital, Blackfriars - - - | | 800 weekly | 9 |
| St. John's Hospital - - - - | 39 | 3,053 | 12 |
| St. Peter's Hospital for Stone - - | 138 | 13,850 attendances 1,390 patients ? | 16 |
| *Smallpox.* | | | |
| Smallpox and Vaccination Hospital - - | — | — | 108 |
| *Throat.* | | | |
| Hospital for Diseases of the Throat and Chest, Golden-square - - - | 219 | 3,428 | 21 |
| Central London Throat Hospital - - | 55 | 4,420 | 25 |
| *Women.* | | | |
| Chelsea Hospital for Women - - | 71 | 2,000 | 8 |
| Soho-square Hospital for Women - - | 395 | 3,600 | 60 |
| New Hospital for Women - - - | 198 | 2,225 | 26 |
| *Women and Children.* | | | |
| Hospital for Disease of Women and Children, Vincent-square - - - - | 58 | 1,652 | 12 |
| Royal Infirmary for Children and Women - | 232 | 2,350 | 50 |
| Samaritan Free Hospital - - - | 400 | 5,000 | 52 |
| South London Dispensary for Women, and Home for Sick Children - - - | 369 | 2,700 | 33 |
| Seaman's Hospital, Greenwich - - | 2,272 | 3,080 | 300 |
| *Dental.* | | | |
| Dental Hospital of London - - - | — | 29,679 patients | — |
| National Dental Hospital - - - | — | 10,000 patients | — |
| | 14,805 | 285,256 | 3,119 |

*Special Hospitals in London*—con.

| Name | Number of Patients in one year | | Beds |
|---|---|---|---|
| | In-patients | Out-patients | |
| Brought forward - - | 14,805 | 285,256 | 3,119 |
| *Heart and Paralysis.* | | | |
| National Hospital for Diseases of the Heart and Paralysis - - - - - | 87 | 7,564 | 20 |
| *Temperance.* | | | |
| London Temperance Hospital - - | 130 | 1,272 | 17 |
| *Accidents.* | | | |
| Poplar Hospital - - - - - | 468 | 4,413 | 50 |
| *Men.* | | | |
| St. Raphael's Hospital for Men (Roman Catholic) - - - - - - | 57 | — | 15 |
| | 15,547 | 298,505 | 3,221 |
| General Hospitals - - - - | 38,700 | 607,000 | 4,711 |
| Total - - - | 54,247 | 905,505 | 7,932 |
| | | 54,247 | — |
| Estimated number of Dispensary Patients - | — | 240,000 | — |
| Grand Total - - - | — | 1,199,752* | — |

From the foregoing tables it will be seen that the 16 general hospitals contain 4,711 beds, and relieve an approximate average of 39,000 in-patients, and 607,000 out-patients, whilst the special hospitals, with more than 3,200 beds, relieve about 16,000 in-patients, and 298,000 out-patients. The general dispensaries and the special dispensaries together treat nearly 240,000 patients. The number of patients treated altogether at the general hospitals and dispensaries and the special hospitals and dispensaries, exclusive altogether of the provident dispensaries and of the State hospitals and dispensaries, would, therefore, amount to about 1,200,000. As very few of the hospitals require any payment from their

* Patients at voluntary hospitals in one year.

patients, this number must be taken for the number which on the face of the returns appears to represent the amount of gratuitous aid afforded in the metropolis by the voluntary hospitals. So far as the number is concerned, it tallies with other estimates which have been made by other writers. It is certainly a monstrous and alarming fact—if it be a fact—that 25 per cent., or 1 in 4 of the entire population in London, are in receipt of gratuitous medical advice and medicine. Is this number correct? The author thinks not. Many deductions will require to be made on the following grounds:—

1. A good many patients come from the country, being sent up as in-patients, to be under some particular physician or surgeon, or to receive the benefit of advice in London. To some institutions patients come from all parts of the country. Some come up as out-patients, going and returning by rail. It is quite impossible to say how many should be deducted on this ground, but the number will not be small.

2. In-patients who are made out-patients are reckoned twice over. A large number of in-patients on being discharged from the wards are made out-patients, and a good many who have commenced attendance as out-patients are taken into the hospital. But the patient may be reckoned at the same hospital three times over, for an in-patient may be made an out-patient, and relapse, be sent in again, and reckoned as a new case.

3. Hospitals like to swell their returns for the sake of appeals to the public, and attendances sometimes pass muster for patients.

4. Patients travel about from one hospital and dispensary to another. Some are in the habit of doing this, and when discharged from one institution, take refuge in another. One patient may go to four or five or more hospitals and dispensaries in the course of the year. This happens especially with cases of a chronic and not readily remediable character, with malingerers, and with incurable cases. Some patients come for temporary relief, and are compelled to make periodical visits to a hospital.

The only way to check the figures would be to have every patient in every hospital and dispensary registered with name, address, and nature of the case, and to have returns sent into an office with a sufficient number of clerks to collate the returns and compile an accurate account of the whole, showing the places from which the patients came, the number of patients from each place, and the

number of hospitals each patient had attended. The labour would be enormous, but it would give reliable statistical data.

Now, although it is certain that the 1,200,000 cases are an exaggeration of the real number relieved at the voluntary hospitals, it is equally certain that the actual number relieved is far beyond the limits of necessary charity. In the present state of our knowledge it is simply impossible to say how many should be deducted from the 1,200,000. Let us say that 600,000 should be deducted, and we should still have 15 per cent. of the population of London, or about 1 in 7 obtaining gratuitous aid, exclusively of the number of paupers. Adding $3\frac{1}{2}$ per cent. for the paupers we should have a total of $18\frac{1}{2}$ per cent., or 1 in every $5\frac{1}{2}$ of the population. What the percentage of sick persons, or persons resorting to medical practitioners in the course of the year may be, it is impossible to say, but when it is considered how many persons pass through the year without needing medical advice or interference, surely $18\frac{1}{2}$ per cent. of the population would be enough to satisfy the keenest appetite for the detection of abuses.' With regard to expense, a member of the Charity Organisation Society, who has studied the subject with great care and arrived by a different reckoning at the same number of 1,200,000 patients, observes:—"Quite as striking, however, are the estimates which have been made as to the great cost of this vast system of medical charity. According to a calculation, of which it is impossible in the present letter to give the method or the details, but which is also derived chiefly from the reports for 1872 of the London hospitals and free dispensaries, the total annual income of these institutions, not including the value of land and buildings, amounted in round numbers to £600,000, of which £568,000 belonged to the hospitals alone; and if to this £600,000 we add £41,031 expended in the same year by the Poor Law in ordinary medical relief, £24,817 expended by the Metropolitan Asylum Board on smallpox and fever hospitals, £65,857 expended by private charity on lunatics, idiots, and imbeciles, and £262,673 expended on the same classes of patients by the Metropolitan Asylum Board and other poor law authorities, we find that the total amount contributed, either compulsorily or by charity, for the gratuitous relief of those mentally and physically afflicted, amounted in that year, and in London alone, to upwards of £994,000, or nearly £1,000,000—that is to say, taking the population of the

police circle, which is the largest of all metropolitan areas, and estimating it at 3,939,466, or in round numbers 4,000,000, we discover that 3s. per head on this population are annually spent on the voluntary gratuitous medical relief of persons not afflicted by mental disease—a sum which, if divided among its 1,200,000 recipients, would yield 10s. a-head to each of them. Yet the Poor Law medical relief of those not afflicted by mental disease costs only 4d. per head on the same population, and in Manchester, where the excess and abuse of charity have been so thoroughly exposed by Mr. O'Hanlon, the sum expended in voluntary gratuitous medical relief amounts to only 1s. 4½d. per head on the population, and if divided among the recipients would yield only 6s. 4¾d. to each of them. It has been remarked in the *Westminster Review* (to which we are indebted for many of the foregoing figures), that unless the average weekly cost of each in-patient in the London hospitals exceeds, in spite of the fact that such patients are required to provide their own clothing, the weekly cost in the magnificent asylum at Earlswood (as returned in 1865), then the sum which remains for the relief of out-patients amounts to 7s. 10½d. per head, whereas the cost of each patient at three important London dispensaries has been estimated at 2s. 10¼d., 1s. 4½d., and 1s. 8¼d. respectively. And again, the unnecessarily munificent expenditure of at least one great endowed hospital is shown by the facts that dividing the expenditure of capital by the number of beds, each bed at St. Thomas's has been estimated to cost £833, while each bed at the Poplar Hospital costs only £30; and that the 600 beds of St. Thomas' cost a sum nearly equal to that expended by the Metropolitan Asylum Board in providing six separate hospitals, containing collectively 4,271 beds."

General hospitals are those hospitals which treat every kind of case, except some which, for obvious reasons, are excepted—as, for example, infectious and contagious diseases, incurable diseases, mental diseases, and cases of confirmed consumption. Each general hospital receives both male and female patients, and children of both sexes. Some hospitals place the children in separate wards; at other hospitals they are distributed among the female patients, as a more natural and cheerful arrangement. Each general hospital has its in-patients who occupy the beds in the wards, and comprise those who have the more serious ailments, and its out-patients who attend usually twice, sometimes only once, a week

for advice and medicine. As already stated, the in-patients are seen by the visiting physicians and surgeons, and the out-patients by assistant physicians and assistant surgeons (who often shed the affix assistant after a few years' service). Each out-patient is provided either with a letter or paper which he keeps in the intervals between his visits, and on which are printed necessary directions for his guidance, or with a paper of the same kind encased in a hard cover known as a book, which is retained at the hospital and given to him on his arrival by the porter. These papers or books are used for the prescriptions of the medical officers. The out-patients are seen in rooms often under ground, and occasionally very small and stuffy, with insufficient conveniences and appliances, by the assistant physicians and assistant surgeons—the former attending to the medical and the latter to the surgical out-patients, of course in separate parts of the building. The out-patients, always numerous, sit in the waiting-halls, and are seen in rotation. There is a hall-porter, who keeps them in order, and admits them in batches to the presence of the medical officer. It is not uncommon for him to have to tell the patients to be quiet, and he has sometimes to shout to make himself obeyed. Patients bring their own bottles and gallipots, and when they have been seen and prescribed for, pass on towards the dispensary, and file through the narrow passage in front of the dispensary window, to obtain their medicine and external applications. If found to be seriously ill, the out-patient is sent upstairs to be made an in-patient.

Patients not provided with tickets, and requiring immediate attention, on first entering the hospital, pass to a room called the receiving-room, to which are attached male and female dressing-rooms, where they are examined either by a house physician, if medical, or a house surgeon, if surgical; if considered by these officers suitable for admission into the hospital they are sent to their respective wards.

General dispensaries receive two classes of patients. The bulk of the patients are—like those who attend the out-patient departments of general hospitals—persons able to walk to the dispensary, where they are seen either by the physician or one of the physicians, or the surgeon, according to the nature of the case. Advice and medicine are afforded, the patients bringing their own jugs and gallipots. The remainder of the patients consists of those who are unable to attend themselves at the dispensary and require to be

visited at their own homes. Home-visiting is a distinctive feature of dispensary practice, wherein it differs from out-patient hospital practice. Each dispensary has a certain area within which visiting is undertaken. The medical staff of a dispensary consists of physicians and surgeons, and, perhaps, consulting physicians and consulting surgeons. The number of physicians and surgeons is subject to some variation. To a small dispensary there may be one or two physicians and one surgeon. The medical cases generally exceed the surgical cases considerably. Dispensaries have a resident medical officer—generally a young practitioner—who lives at the dispensary, makes up the medicines, draws teeth, attends midwifery cases, and undertakes the whole, or greater part, of the visiting. He receives a salary of from £80 to £130 a year, with rooms (furnished or unfurnished), coals, gas, and attendance, "finding himself." Dispensaries are managed by committees appointed by the governors. The committees generally sit monthly for the transaction of business, and there are quarterly meetings of governors. Dispensaries very rarely have beds for in-patients, and operations other than the most simple cannot be performed there. Both at hospitals and dispensaries the usual time allowed for an out-patient to attend is two months, at the end of which time, if he is not cured or relieved, he is either discharged or "renewed." The practice of the medical officers differs, for some steadily decline to "renew" patients—or, rather, their tickets—on the ground that if they are unable to do the patients any good in two months they will not do them any good at all, whilst others never discharge patients, on the ground that if they cannot cure the patients, the patients are greatly comforted and assisted by the medicines prescribed; others, again, exercise an intermediate discrimination. Provident dispensaries differ from general dispensaries chiefly in their basis of administration; they are sick clubs—the poor people subscribing a small sum weekly while in health for treatment during sickness. The proceeds, after paying expenses, are given to the medical officers.

The general arrangements and mode of government and internal economy of special hospitals and dispensaries are similar to those at general hospitals and dispensaries, and do not need further description.

We now pass to the mode of admission of patients, and the defects of the present system. In 1870 a meeting, attended by

156 members of the profession, was held at the rooms of the Royal Medical and Chirurgical Society, to confer on the subject of the state of the out-patient departments, and was presided over by Sir William Fergusson. A large committee was appointed and divided into four working sub-committees to examine and report respectively on (1) General Hospitals, (2) Special Hospitals, (3) Free and Provident Dispensaries, and (4) Poor Law Dispensaries. Each of the sub-committees (to one of which the author was attached) gave a considerable amount of time and trouble to the investigations necessary, and some important facts were elicited, of which use will here be made, as they represent the present condition of the institutions under review.

The hospitals and dispensaries adopt different modes of admitting patients to the benefit of their medical assistance. The modes are four in number.

(1) Some are absolutely free hospitals, no letter of recommendation is required, no payment has to be made, no questions are asked, but the patients are admitted on application at the institutions.

(2) Some—and these constitute the majority of the institutions—require the patient to be provided with a letter of recommendation from a subscriber or governor. The patient shows the letter, is admitted, examined by the physician or assistant-physician, or surgeon or assistant-surgeon, and is either instructed to attend as an out-patient, or, if a serious case, is sent upstairs to become an in-patient.

(3) At some of the hospitals the members of the staff have the power of admitting cases into the wards by signing a book called the "extra case" book. Cases are often sent by practitioners to see particular physicians or surgeons, and they get admitted in this way.

(4) At some, patients are admitted without governors' letters, but have to pay a small sum weekly, varying in amount.

It must be observed that a combination of these modes may be employed. Some institutions combine payment with free admission and admission by governors' letters, the patients having either to pay or to obtain a letter. Payment is not required at the large general hospitals, but at some special hospitals and some of the dispensaries a small payment is made by each patient. Hospitals are generally free to urgent cases requiring imme-

diate treatment. The doors of general hospitals are open, or opened, day and night for the admission of accidents and serious or acute medical cases, and cases of poisoning, whilst patients who can wait are obliged to get governors' letters. Any one complaining of any trifling ailment can enter the receiving room and receive the advice of the house physician, or house surgeon, and a bottle of physic and some pills, if required, and he will then be directed how to proceed if he requires further attendance. A very large number of these small, or apparently small, cases flock to some hospitals—as, for example, to the casualty department of St. Bartholomew's, where they are seen by special assistant, or casualty, physicians and junior assistant surgeons and house surgeons, and undergo a process of filtration by which the interesting cases become either in-patients or out-patients, and the minor cases are furnished with medicine or surgically treated.

The sub-committee on Special Hospitals obtained from 33 special hospitals answers to questions sent to them. "Their first question was: Do any of the patients pay any sum whatsoever for medical advice and appliances? The replies were, at 15 hospitals (45·45 per cent.), No; at 5 (or 15·15 per cent.), the patients pay for appliances only either wholly or in part; and at 13 (or 39·39 per cent.), the patients pay for admission—*i.e.*, *for advice*, some according to a fixed rate, but for the most part the payment varies with the patient's ascertained ability, the range being from 2d. per visit to 21s. a month." Of 38 dispensaries (33 general and 5 special) who replied to the same question sent by the Sub-Committee on Dispensaries, 22 (57·9 per cent.) answered No; at 11 (28·9 per cent.), payment was made in some form; at 3, there was an opportunity for voluntary (?) donations by a collecting box being available, and at 1 even handed round; in 2, half the cost of appliances was charged; in some, 1d. was charged for each visit or prescription; in some, 1s. or 6d. per week, and a fixed sum, 6d. or 1s. 6d., for a letter of admission. Some subscribers made patients pay something for their letters. In all, those absolutely in want were admitted free. Boxes were a decided failure, the receipts in one place reaching in one month the sum of 3s.

A second question asked by the two sub-committees was—"What means do you adopt to exclude the attendance of those who are above the class of the necessitous poor?" The special hospitals were found to admit patients, as a rule, above the class of

necessitous poor. At 3 hospitals (9·09 per cent.) the authorities trusted to the truthfulness of *certificates* as a guarantee that their charity was not abused; 3 (9·09 per cent.) left it to the discretion of the subscribers; 8 (24·24 per cent.) left it to the discretion of the medical officers; at 6 (18·18 per cent.) inquiry was instituted; at 2 no means at all were used; at 1 unfit cases were excluded by the secretary; at 1 there was a prohibitory notice printed on the patient's card, and also hung up in the waiting-room; and at another the dispenser questioned the patients, and was allowed to sell them tickets of admission. One hospital had the following among its rules for out-patients:—"Such patients as present cases of destitution, and requiring food, clothing, domestic attention, &c., rather than medicines, are *not* admissible, however recommended." Of the 38 general and special dispensaries, 11 (28·9 per cent.) left it to the discretion of the medical officers more or less; 17 (44·7 per cent.) left it to the discretion of the subscribers; at 7 (18·5 per cent.) no means were taken at all; at 2 inquiries were made by the committee of the dispensary before a letter was given; and in 1 the porter or secretary selected the patients.

The third question submitted by the sub-committees was—"What is the daily average number of out-patients seen by each?" Of 27 special hospitals, at 9 (39·39 per cent.) the daily average was under 50; at 4 (12·12 per cent.) over 50, but under 100; at 13 (or 39·39 per cent.) it was over 100; and at 1 hospital over 150. Of 38 general and special dispensaries, the daily numbers at 15 were 50 and under; at 14 between 50 and 100; at 5 between 100 and 200; at 3 the numbers were unrecorded; and at 1 the patients were only seen at their own homes.

A fourth question put was—"Do any of the medical officers receive any remuneration for their services?" Of 33 special hospitals, 30 paid no sum to the physicians and surgeons, but some paid a house surgeon; 1 hospital exacted payment from its house surgeon for board and lodging, and 2 paid their medical officers; 1 paid each physician and surgeon £50, and the assistant officers £25. A surgeon of the other hospital which paid its medical officers declined to give the sub-committee any particulars. Of 38 general and special dispensaries, 22 (57·9 per cent.) answered "No," with the exception, of course, of the resident medical officers; 15 "Yes," and 1 did not answer. £50 a year is an ordinary payment to dispensary physicians and surgeons.

With regard to the exclusion of persons not really necessitous, some of the authorities at the hospitals and dispensaries which left the bestowal of tickets to the discretion of the subscribers adopted the plan of putting a prominent notice on their tickets of admission that the benefits of the hospital were intended entirely for those who were poor, and required gratuitous hospital aid—too poor to pay for suitable medical and surgical aid—and governors were requested to avoid recommending persons with whose circumstances they were not acquainted. At one or two, domestic servants were specified as not belonging to the necessitous poor.

Since Sir William Fergusson's committee and its four sub-committees sat and reported, the subject of hospital out-patient management and the reform of its abuses has been taken up vigorously by the Charity Organisation Society, the Out-patient Reform Association, and the British Medical Association. The attention of the managers of the general and special hospitals has been drawn to the evils resulting from the crowds of out-patients attending the institutions. The pressure brought to bear on the governing bodies has induced a few, and only a few, to correct the abuses. The sub-committee on special hospitals recommended that a uniform system of payment, graduated according to the means of the patient, should be enforced at all the special hospitals of London, and it would seem that a large proportion of them have acted on the advice tendered, and whilst remaining free to the necessitous poor, exact payment in some form or other from those patients who are above that class, but are unable to afford to pay a medical attendant. At the Royal Infirmary for Women and Children each out-patient pays a penny, and each in-patient sixpence. In one year the payments amounted to £120. The large endowed hospitals—Guy's, St. Bartholomew's, and St. Thomas'—did not respond to the appeals made to them; but in 1878 Sir Sydney Waterlow called a meeting of treasurers and trustees of the metropolitan hospitals, and a series of questions were submitted to the governing bodies. At the Great Northern Hospital in 1875 a special officer was appointed to register the out-patients, and after the first visit to inquire into their circumstances, and to accept or reject them accordingly. A scale of wages constitutes the test of fitness. At the Children's Hospital, Great Ormond-street, the out-patients are limited to sixty a day, and many—as many as ninety sometimes—are sent from the doors. The patients are

relieved at their first visit and then referred to the Charity Organisation Society. This society has an office in each Poor Law district, and the divisional office in the neighbourhood of the patient's home makes inquiries. The rule is to exclude all applicants earning more than thirty shillings a week, except under special circumstances, and all receiving Poor Law relief are also excluded. St. George's Hospital has limited the number of out-patients, and co-operates with three provident dispensaries in the neighbourhood of the hospital. At the London Hospital a joint committee of the house committee and the staff (but chiefly house committee) inquired into the matter in 1873, and came to the conclusion that the hospital was very little abused. Of 43,808 out-patients the committee at once set aside 24,754 as transparently suitable. The number included 10,040 accidents; 1,809 in-patients requiring further treatment as out-patients, and a few nurses and servants; 6,080 minor casualties, such as slight accidents and temporarily severe medical cases; 3,281 patients attending the special departments for the treatment of diseases of the eye, ear, and skin (all essential for the education of the students); 2,958 dental patients, essential for the like reason, and 586 maternity cases. From the 19,714 patients remaining, 2,960 renewals were deducted, leaving 16,094 admitted by governors' letters, or an average of about 6 per annum to each governor; 25,657 persons who paid a single visit and received medicine, and were not included as out-patients. A very large proportion of the 16,094 were, no doubt, admitted through the agency of clergymen, Scripture readers, and others working in the East End, presumably acquainted with the circumstances of the patients. The conclusion arrived at by the committee was that by far the larger proportion of the London Hospital out-patients (as stated by the majority of the staff) were suitable recipients of hospital charity, and that there might be a small percentage of improper cases. A proposal to diminish considerably the number of out-patients, which seemed likely at a later period to be carried, has been shelved. In 1874 the governors' letters were altered in such a manner as to draw special attention to the circumstances of the patient—the form of recommendation to be filled in either by the governor recommending, or his or her *registered* proxy (registered at the hospital), states that the applicant does or does not receive parish relief, and is known personally, or from credible information, as being poor and requiring hospital

aid; and the letter has a notice printed in red that "the London Hospital being established to relieve only those persons who are too poor to pay for suitable medical or surgical aid, the bearer of this ticket may be required, at the discretion of the authorities, to give information as to his (or her) circumstances, together with the name and address of a person of respectability, who will reply to any inquiries about the applicant which the committee of the hospital may see fit to institute." Notices are also placarded to the same effect at the hospital gates and in the waiting halls. King's College Hospital has a Registrar, and occasionally sends cases to the Charity Organisation Society for investigation, and the Royal South London Ophthalmic Hospital employs the agency of the Charity Organisation Society for making inquiries into the circumstances of the patients. The main change effected, however, has been the establishment of provident dispensaries, chiefly at the West End of town, and the conversion of some general dispensaries into provident dispensaries, but the movement, though active and progressing favourably, is still in its infancy. Fermentation is proceeding in the governing bodies and may ultimately lead to the conversion of a larger number of general dispensaries into provident institutions.

The abuses which have afflicted, and are afflicting, the system of hospital relief at present in vogue, have been thoroughly sifted and exposed by many inquirers and writers on the subject. In point of fact, they are so glaring and patent that he who runs may read them. Although some of the reasons have been adduced for questioning the accuracy of the grand total of one million two hundred thousand patients in the course of the year, or more than one-fourth of the population of the metropolis, who, on the face of the returns, receive gratuitous medical advice and treatment at the voluntary hospitals and dispensaries alone, this scepticism does not in any way affect the existence of the evils themselves. Very likely too low a descent has been made in halving the number, but be the number what it may, no other conclusions can be drawn than that—

I. The number of out-patients at the hospitals and dispensaries is excessive, and produces the following undesirable results:—

(*a.*) The waiting-rooms are crowded often with a seething mass of humanity, many of whom are compelled to wait an inordinate time before they can see the physician or surgeon, and after waiting for hours, may be dismissed without seeing him, or have the pre-

scription repeated. To men, waiting means loss of labour and pay.

(*b.*) The congregation of so many persons, not always clean or sweet, has a distinctly deleterious effect on the atmosphere of the hospital, which neither benefits the out-patients themselves nor the in-patients in the hospital wards.

(*c.*) The patients are seen at a very rapid rate—too rapid for full investigation of their cases. The time varies greatly in different instances. If the physician takes trouble, he may be detained for five or six hours at his laborious task; if he compresses his work, the patient may have to put up with a minute or 45 seconds of his time. It must be noted that all cases apparently serious are thoroughly investigated and examined, being sent into a side-room, where they are stripped and overhauled, but necessarily—

(*d.*) The official railway pace leads to occasional oversights.

(*e.*) The excessive and often unlimited number of out-patients interferes with and prevents the members of the staff from giving clinical instruction to students at the educational hospitals.

(*f.*) Patients are often obliged to have the advice either of a senior student, or a young practitioner employed as an assistant, instead of the physician or surgeon whom they came to consult, and who is supposed to attend them. It was ascertained by the Hospital Out-patient Reform Association that out of 48 hospitals only 9 dispensed with the services of unqualified students for prescribing for the patients.

(*g.*) Not only, then, is the advice given not always of the first quality, but the medicines prescribed are of a routine character, which may or may not be adapted to do good to the patient.

(*h.*) A large number of trivial cases are admitted, which waste the time of the consultee, and render his labour "weary, stale, flat, and unprofitable."

II. Patients are admitted to the benefit of hospital treatment indiscriminately, and without due investigation of their circumstances. The system of governors' letters with their red-lettered notices, placards on walls or outside the building, sifting by medical officers trusting to the truthfulness of certificates or the agency of clergymen and Scripture-readers, unskilled and incomplete inquiry, have all failed as a means of sifting the suitable from the unsuitable cases. Hence result the following evils:—

(*a.*) A very large number of patients are seen gratuitously, who

could afford to pay for medical treatment—some more and some less.

(*b.*) Lessons of dependence are learnt, self-respect is lost, moral status is lowered, and by the neglect, thus encouraged, of provident habits and thrift, a pauperising influence is brought into operation.

(*c.*) Medical men are deprived of the remuneration which rightfully belongs to them—and in this statement are included both the general practitioners and the physicians and surgeons to the hospitals. The extent of the encroachments of well-to-do people on the gratuitous relief afforded at the hospitals and dispensaries has been illustrated abundantly in the general and the medical press. We have heard of the rich lady driving down in her carriage to a convenient distance from the hospital, and then alighting and presenting herself in plain dress to receive the advice of the unsuspecting physician; of the wives and daughters of wealthy men borrowing their servants' clothes to appear as out-patients; of well-to-do publicans, pawnbrokers, tradesmen, manufacturers, and their wives, attending in the out-patient department, subscribers to hospitals making use for themselves or their relatives of the tickets intended for the necessitous poor; of wealthy persons sending their servants; of firms paying small subscriptions to hospitals for the purpose of securing medical relief for their work-people at a very considerable saving to themselves; and we heard years ago from Mr. Whitfield, of St. Thomas' Hospital, in a letter to *The Times*, of "many persons in affluence, rich in this world's wealth, but poor in mind, who, to their shame, never hesitate to seek advice and medicine from the hospitals as paupers, committing not only a moral deception, and defrauding the private practitioner of that which, under a better system, would fall to his lot, but (at hospitals where any limitation is made to the daily number of patients) often preventing, by their impudent assurance, the humble labourer from obtaining that relief to which he is more justly entitled." The sub-committee on general hospitals estimated the probable income of half the number of out-patients at from £1 to £1 10s. a week, one-fourth more than this, and the remainder less. More recently the Charity Organisation Society has obtained more precise information by following up cases to their homes. Of 641 patients at the Royal Free Hospital, 103 gave false addresses, 231 were considered able to subscribe to a provident dispensary, and 36 per cent. were regarded as suitable applicants. Of 3,498 out-patients at the

Children's Hospital, Great Ormond-street, referred to the offices of the Society, only 1,487 put in an appearance, and 266 of the 1,487 were rejected as unsuitable—that is to say, that more than 57 per cent. declined to have their cases investigated, and more than 7 per cent. of the whole number, or more than 18 per cent. of those actually investigated, were found to be unsuitable. If the number of those who declined investigation be considered as unsuitable cases, then 65 per cent. of the cases applying for medical relief at the Children's Hospital were unsuitable.

(*d.*) Other patients attend who are paupers, and should be relieved at the poor law dispensaries.

(*e.*) Many patients require good food, clothing, and the benefit of improved sanitary arrangements at their own homes rather than medicines. It is a farce to order quinine for a person who is in a low state of health because he or she has been existing for weeks on an insufficient supply of wholesome food.

(*f.*) The funds subscribed by the benevolent public are wasted. Various estimates have been formed of the average expense of an out-patient, the estimates ranging from 1s. to 5s. at the general hospitals in London. If the sum of 2s. 6d. be adopted, and if it be considered that one-half the present number of out-patients at the general hospitals are able to pay the amount expended on them, then an hospital with 40,000 out-patients a-year might save £2,500 per annum of the money given by the benevolent public. A million out-patients cost at the same rate £125,000 a-year, half of which, at least, might be saved.

(*g.*) In order to make provision for the constantly increasing numbers of out-patients, the governing bodies of hospitals are as constantly increasing the number of assistant physicians and assistant surgeons out of proportion to the physicians and surgeons to the in-patients. By this increase the indirect value of the unpaid appointments is greatly lowered, and other inconveniences result, as the most recently appointed juniors will probably be bald and grey before they can rise to the higher offices. The staffs of hospitals are by no means strengthened by making them very large.

(*h.*) The indiscriminate admission of out-patients has led to the managers of hospitals adopting the very undesirable practice of appeals for funds being based on the number of patients relieved at the institution, and the idea that advertising an immense influx

of patients draws the benevolent public has led to every effort being made to increase the proportions of medical relief administered in an already bloated department. This vicious system resembles jealousy, which grows by what it feeds on, and recalls the language of the Roman poet and satirist, "*Crescit indulgens sibi dirus hydrops.*" Returns of out-patients are not unfrequently swollen by the inclusion of casual visitants to the receiving rooms, and by counting attendances as cases. Renewals of tickets are reckoned as new cases.

(*i.*) Some minor ill effects may be mentioned which were first brought under notice by Mr. Whitfield. There is the "abuse practised to a considerable extent by persons who go from hospital to hospital obtaining medicine as out-patients purely for the purpose of selling it," a fraud which until some different plan is adopted it is impossible to prevent. "Impostors," again, "frequently resort to hospitals as out-patients for certificates, to impose either on their clubs or on the charitably disposed, pretending to require assistance for the support of themselves and families, while they are spending their time and club money in idleness and dissipation. Among minor abuses may be named the dyspeptic drunkard, the hypochondriac, the misanthrope, and the destitute pauper. Not least, too, the habitual medicine taker! for medicine has its votaries as well as spirit—old women who are fond of cordial waters and antispasmodics, and are not content without swallowing the medicines of various hospitals at the same time, or who, when a physician does not exactly accommodate his prescription to their taste, will go outside the dispensary, and deliberately empty their bottle down the drain." The indiscriminate admission and the excessive number of out-patients necessitating very rapid prescription, give rise to an erroneous estimate of medicine as a science, and foster the belief that the practice of medicine requires no special training. What must be the effect upon the public of the description of the casualty department of the hospital given in the last number of the *St. Bartholomew's Hospital Reports?* In 1869 the *Lancet* commissioner stated that on one morning "120 patients were seen by the physician and dismissed in an hour and ten minutes, or at the rate of 35 seconds each. Who shall say what mistakes were made? None can tell. This superb hospital opens its capacious doors freely and widely, and by the reputation of its staff attracts the poor, invites their confidence, and excites

their hopes of cure. The patients are entitled, at least, to decent examination and reasonable care. But they were dismissed with a doubtful dose of physic, ordered almost at random, and poured out of a huge brown jug, as if the main object were to get rid of a set of troublesome customers, rather than to cure their ailments. The whole proceeding is unworthy of the place. It is impossible to believe that it is sanctioned by the staff, or that it is incapable of remedy. The practice is condemnatory of the management, the more so as it has been going on for months, if not for years." In 1879 the *Lancet* remarks, " They [the three casualty physicians] have to filter something like 500 patients in a morning, and to do the filtering business in two hours, so as to have the filtrate ready by 11 o'clock. They are supposed to dismiss the slight cases, to send on the graver ones to be regular out-patients, and the gravest for admission as in-patients. A casualty physician may in this way in a morning be confronted with 200 people. It must not be supposed that the greater bulk of them have nothing the matter with them. This is a fallacy which needs exposure. Dr. Bridges has classified them, from such actual observations as, under the circumstances, were possible, thus—' Many of them seriously ill, some mortally, many but slightly, but *nearly all with considerable bodily inconvenience or pain*, which, unless disease be a joke (and this the whole constitution of our hospital forbids us to suppose), entitles them to his patient attention and investigation, and demands his skill and advice.' Dr. Bridges shows us that something like 190,000 patients a year are seen in the casualty department alone by himself and his colleagues, at the rate of a patient in a minute and a quarter. The medicines are supplied chiefly out of jugs, and at a trifling cost. The medicines, however, are not without therapeutical value. They consist essentially of purgatives, a mixture of iron, sulphate of magnesia and quassia, and cod-liver oil—fulfilling the two great indications of all therapeutics, elimination and the supply of some elements to the blood. Dr. Bridges founds, on the small cost of the medicines supplied, an estimate of the profitableness of those practices in which medicine is supplied out of jugs, and patients seen at the rate of one minute for sixpence or a shilling. It is one of the most awkward parts of this casualty system at a recognised and respectable hospital like Bartholomew's that it seems to give sanction to loose and haphazard modes of practice, which degrade medicine in the estimation of the public.

Of the 30,000 patients seen by Dr. Bridges in three months, he took notes of only 70." The wonder is that, charged with the necessity of a happy despatch of the patients in a stated time, he took notes of so many as 70. The difficulty of finding time for note-taking is one of the drawbacks of the out-patient departments as at present constituted.

III. The mode of admitting patients by means of governors' letters is attended with some disadvantages. It has been shown that these letters are no security whatever against abuses. Well-to-do people and impostors have no difficulty in obtaining them. The sub-committee on general hospitals observed on this subject:—"The practice is one of the chief sources of hospital abuse. The sub-committee believe that many masters and employers of labour contribute to hospitals with the object of providing medical assistance for their servants and workmen at a cheap rate. Men whose ordinary income is £2 or £3 per week expect to have letters of recommendation given them to the neighbouring institutions. They are thus relieved from the necessity of joining benefit societies and provident dispensaries, and the tendency of the masters' liberality is to destroy habits of forethought and independence. The system also forms the excuse for free dispensaries and hospitals, since it is often injurious to the really sick to be compelled to go about in search of governors' letters, whilst it is obvious that absolute freedom of admission is liable to very great abuse." Not only is it injurious for the sick to have to tramp about after governors' letters, but valuable time is often wasted while the ticket is being secured by a patient or his friends. The disease is aggravated by exposure and delay, possibly in some cases rendered incurable and fatal.

IV. The absence of any kind of mutual connexion and interdependence between hospitals, special hospitals, and dispensaries, is a prominent defect. Each hospital exists for itself and by itself. The interests of the hospitals conflict with each other, and they enter into a keen competition for patronage and patients—a competition which tends to aggravate the evils already portrayed. Hospitals and dispensaries spring up in highways and byways without regard to the general advantage, the actual needs of the district, or the requirements of medical education. Special hospitals and "provident dispensaries," so called, are multiplied for the private aggrandisement of individuals, and there is no check

beyond the initial difficulty of securing public support. A *bonâ fide* special hospital needs for its establishment considerable personal influence, which only a few can command; but a "provident dispensary" is often little more than a surgery, where patients pay their twopence or sixpence or a shilling a week, coming and leaving when they please. It may be a proprietary institution, where the medical officer acts simultaneously as committee, staff, cashier, and bottle-washer, and it may be left entirely to the management of an unqualified assistant.

The increase of special hospitals is attended with this serious consequence—that important cases, and cases illustrating disease of particular organs, are taken away from the general hospitals where medical students are educated, so that it becomes very difficult to obtain a sufficiently varied supply of material for clinical instruction. No doubt the general hospitals are suffering from the short-sighted policy which refused to make adequate provision for special cases. No doubt the special hospitals have done good service by introducing improved methods of treatment and curing cases deemed previously incurable. Nevertheless the special hospitals, as at present arranged, are injurious to the cause of a complete medical education. Only a few students can afford the time to run about from one hospital to another, or to prolong their curriculum for the purpose of attending at the special hospitals. The management of the special hospitals is more likely to be defective than that of the general hospitals, as it sometimes falls into the hands of one influential member of the staff, whose autocracy does not commend itself to the independent spirit of his colleagues.

Having given an outline of the evils resulting from the existing system of out-patient relief, and called attention to the disadvantages of a want of connexion between hospitals and dispensaries of different denominations, we pass to a consideration of the remedies to be applied. It is to be remembered that our inflated out-patient departments are the growth of less than fifty years. At St. Thomas' Hospital there was no out-patient department till 1834; but when once the ball was set rolling, it began to increase in size, and in twenty years had attained to about a third or fourth of its present alarming proportions. Year by year the numbers relieved in the out-patient departments have increased, and where the evil would have stopped if it had not received a check from the exposure of individual writers and associations, it is impossible to

conjecture. Whether or not "the great extension of the hospital out-patient system during the last thirty years," as asserted by the sub-committee on general hospitals, and confirmed by the sub-committee on poor-law dispensaries, "is largely due to the repressive action of the poor-law and to the serious imperfections in the system of poor-law medical relief," certain it is that the recent improvements in poor-law medical relief and the establishment of the dispensary system in London have removed any excuse for such increment of the out-patient departments as can, by any fair show of reason, be attributed to the causes above mentioned. No doubt paupers may be found in the waiting-rooms of the hospitals, but small complaint would ever have arisen about paupers if they had not been elbowed by the affluent and well-to-do. The remedy against paupers is in the hands of the hospitals themselves, who can refer them to the district dispensary. The great question is—What is to be done concerning the bulk of the out-patients who belong to classes above the pauper class, although there may be also a considerable sprinkling of persons who are verging on pauperism? The inquiries of the Charity Organisation Society lead to the belief that patients attending the hospitals may be divided into three categories—1. Pauper patients. 2. Patients above the pauper class, who, though unable to pay doctors' bills or the ordinary professional charges, could afford to pay the small sums required by the rules of provident dispensaries; and 3. Patients who ought not to be relieved at hospitals at all, but should be attended by their own medical man. Pauper patients should be relegated to the parish doctor and the district dispensary. The second class of persons should join sick clubs or provident dispensaries, and the third class should provide medical aid for themselves. If these measures were rigidly enforced, it is contended that there would be an end to the abuses of the out-patient system. As the pivot on which recent proposals for reform turn is the provident dispensary, it is necessary to mention its chief characteristics. The Model Provident Dispensary, built upon the lines laid down by the Charity Organisation Society, presents the following main features:—1. The object of the institution is to secure, on providence and mutual assurance principles, medical advice and medicine during illness for the working classes, domestic servants, and other persons who are unable to pay the usual professional fees. 2. The members of the institution are divided into two classes—honorary

and provident. Subscribers of one guinea are honorary members, and donors of not less than five guineas, and ministers of religion and others who collect ten guineas or upwards, are honorary members for life. The provident members are those who subscribe for the purpose of receiving in sickness the benefits of the medical aid provided by the institution. 3. The limit of earnings fixed for eligibility to provident membership is 40s. a week, except under special circumstances. 4. The management is placed in the hands of a committee consisting of the president, treasurer, medical officers, and members elected at an annual meeting—one-half of the elected members of the committee may be provident members. The committee has the power of electing and removing all officers and servants, of admitting and removing provident members, making rules, and managing the finances. Provision is made for annual and special general meetings of members. 5. The scale of payment is—

| | | |
|---|---|---|
| For each person above 16 - - - | 8d. | a month. |
| Man and wife - - - - - | 10d. | ,, |
| For each child (up to three in number) - | 2d. | ,, |
| Widows - - - - - - | 4d. | ,, |
| For each child of a widow (up to three in number) - - - - - - | 1d. | ,, |

Additional children are free.

All subscriptions must be paid in advance. Applicants for membership actually suffering from illness requiring medical treatment must pay six months' in advance.

There are fines for being in arrear of subscription, 2d. for the first month, 4d. for the second month, and 8d. for the third month, of course in addition to the arrears. Any member in arrear more than three months ceases to be a member, and cannot be re-admitted without the special sanction of the committee of management after paying the arrears and fines. The charges for midwifery are extra—15s. for the attendance of a medical man, and 7s. 6d. for a midwife, paid by instalments in advance. 6. Patients may select their own medical officers, but not change during illness without the sanction of the committee. 7. Provident members are entitled to medical advice and medicine, to attendance at their own homes, if needed, and to skilled nursing, if certified to be necessary by the medical officers. 8. If a case can be more satisfactorily dealt with at a

general or special hospital it will be the duty of the medical officer in charge of the case to recommend it accordingly, either for consultation or treatment. 9. Provision is made for affiliation of provident dispensaries, so that members may pass from one institution to another on leaving a district. 10. Medical officers are to receive one-half of the payments of provident members (with the exception of midwifery fees) and £1 for each midwifery case, the balance of 5s. 6d. over and above the 15s. paid by the married women for attendance being made up out of the dispensary fund. Medical officers are also to receive at least two-thirds of the balance left after payment of all expenses.

The principle of association and mutual assurance for provision against sickness has been justly stated by Sir Charles Trevelyan to be "the only means whereby the medical profession can be placed in effective relation with the body of the people. Provided the payments at provident dispensaries can be regularly made in health, as well as in sickness, they may be fixed at so low a rate that all can afford them who are not entirely destitute; and for these payments the person obtains advantages equal to those possessed by the richest. He can select a confidential family doctor from among the medical officers of the dispensary. In case of serious illness he is entitled to medical attendance and medicines, and, if necessary, to skilful and tender nursing, *at his own home*, and if he suffers from disease requiring hospital treatment he is recommended to the general or special hospital most suited to his case. The advantage to medical men is that there are no small bills to collect, and no bad debts, the payments being made, not to the doctor direct, but at the dispensary, and that an opportunity is afforded for acquiring valuable experience, especially in the domiciliary treatment of disease, as well as personal favour and professional reputation. Everything in life is 'give and take,' and it is enough if a preponderance of benefit can be shown. A few small professional fees, which, after all, are expensive and difficult to collect, may have to be foregone towards the upper margin of the working class, but, on the other hand, that entire class, stopping short only at absolute paupers, will be brought under effective contribution."

In addition to provident dispensaries, there exists another agency, founded on the principle of association and mutual assurance, viz.—the agency of friendly societies and sick clubs. These societies, which are very numerous and are known under a variety of titles, such

as Odd Fellows' Lodges, Friendly Societies, Sick Clubs, Sick and Accident Clubs, Foresters' Courts and Friendly Societies, Provident Societies, Labourers' Unions, British Workman's Societies, United Patriots, Hearts of Oak, Kentish Britons, Prussian Hermits, Benefit Societies, Societies of Shepherds, Medical Aid Societies, and other designations, differ from provident dispensaries in contracting with their medical officers to attend their members throughout the year at a certain fixed rate of head money. The rate formerly in vogue was 2s. 6d. per head, and, notwithstanding the increased expense of living, the rise in all other commodities, and the increased rate of wages, remained stationary for many years. Latterly a movement has commenced in favour of an improved scale, and a good many clubs have been induced to raise the head-money to 5s., some pay 6s. 6d., and one or two 7s. Medicine has to be provided for these sums. Most of the societies, if not all, only admit males.

In 1877 a county medical club was organised in Suffolk, consisting of honorary members contributing either £5 in one donation, or 2s. 6d. a year, and benefit members with weekly earnings not exceeding £1; domestic servants may join who do not receive more than £8 a year. The scale of payments is as follows:—

Members pay annually, and the medical man receives—

| | *s.* | *d.* |
|---|---|---|
| Single member - - - - | 5 | 0 |
| Man and wife - - - - | 9 | 0 |
| Man, wife, and 1 child - - - | 10 | 0 |
| ,, ,, 2 children - - | 11 | 0 |
| ,, ,, 3 ,, - - | 12 | 6 |
| ,, ,, 4 ,, - - | 13 | 0 |
| ,, ,, 5 ,, or more - | 14 | 0 |

When a man belongs to any sick club providing a doctor, 4s. 6d. are deducted from the above. In confinements members pay 10s., and the medical man receives, under one mile, 15s.; over one mile, 20s. Surgical extras are allowed according to the scale fixed by the Poor Law Board. The surplus payments, over and above the members' subscriptions, are provided out of the honorary fund. Sir Edward Kerrison, the founder of a very popular medical club at Eye, and one of the chief promoters of the movement for a county club, presided at a public meeting at Bury, held to favour its organisation. In the

course of his remarks he said that the object of the club was to make the labouring population as independent as possible in case of sickness, and to lessen pauperism, as it would do, by preventing working men and their families from taking the first step towards it by applying for gratuitous medical relief. Statistics showed that men were liable to sickness seven days in the year up to 35 years of age, and 44 days up to 65 years. The amount was greater in the case of women, whose sickness was rarely provided for by medical clubs. Of the many millions of women in England, only 22,000 were thus provided for. In the labourer's family the absence of the wife from attending to her family's duties was a very serious matter, and in his part of the county the chairman knew it was more difficult than ever to get nurses to attend to the sick wives and families of labourers. Day by day boards of guardians became more and more inclined to draw still tighter the action of the Poor Law, and they now made it an exception to grant medical relief to able-bodied people. The principle of the club was not new. The Duke of Grafton had had a medical club for many years in his district, which was supplemented by his Grace, and Sir Charles Bunbury had a similar club in operation. A medical club in the union of Grantham, Lincolnshire, had greatly diminished the rates. The club at Eye had 4,000 members, having spread like wildfire. At Earl Sohan there was a club with 1,000 members. The club would tend to diminish the rates. In the Eye medical club, Dr. Fletcher states that for attendance on 1,000 members (half under 16), with 50 confinements and £10 for surgical extras, the medical man receives £186, £60 being paid out of the honorary fund; in the county club, for 1,000 members, 50 confinements, and surgical extras, the medical man would receive £187 a year, only £32 coming out of the honorary fund. The nearer clubs are to being self-supporting, so much the better for all concerned. In six villages, with a population of nearly 3,000, no less than 1,300 are in the club, or 1 in 2·3 of the population. The Eye medical club numbered in October, 1877, 4,200 members, and the payments to medical men were nearly double what they formerly were.—*Brit. Med. Journal*, Oct. 20 and 27, and Nov. 3, 1877.

In the friendly societies the two departments of sick assurance and medical relief are united—that is to say, that any member paying the regular contribution not only receives a weekly allowance when ill, but is entitled to the services of the doctor, who is engaged to

attend each member at from 2s. 6d. to 5s. or 7s. per annum. This arrangement renders the medical officer liable to be called upon to attend rich tradesmen who may belong to the club, and who could afford not only the ordinary fees of a general practitioner, but if necessary those of consulting practitioners as well. Either the two branches of the society should be separated from each other, or there should be a line of income drawn beyond which the services of the doctor should not be given at the contract price.

Both medical clubs and provident dispensaries are worthy of the support of the public and the profession, both being founded on the same principles of self-help and payments during health as a provision against sickness. Affiliated to general hospitals, or working in combination with them, provident dispensaries would undoubtedly have the effect of removing from the out-patient departments of general hospitals many patients who, as Mr. Holmes has well expressed it, "are suffering from trivial maladies, the ordinary lot of humanity which require no special skill for their cure, which are to be expected almost as surely as hunger and thirst, and which should be equally provided against as a part of necessary expenditure, reserving public charity for real emergencies." If there were always an officer at each general and special hospital to inquire into the circumstances of the patients, or if the hospitals employed the agency of the Charity Organisation Society, and if pauper patients were referred to the poor law dispensaries, and those earning more than a certain sum weekly to the provident dispensaries associated in operation with the hospital, no doubt many of the inconveniences at present experienced, and the abuses which have been detailed, would cease and determine. The general practitioners in the neighbourhood of hospitals would form the staffs of the dispensaries and receive their proceeds, instead of being deprived of fees which ought now to pass into their pockets. The hospitals would be relieved of the overcrowding and its deleterious effects on the in-patients, and the funds of the hospitals would be economised. The members of the medical staffs would be set free to engage more thoroughly in the work of educating the students, would have leisure to enter more minutely into the cases of the patients, and would not be driven like beasts of burden through their heavy and unprofitable work. Patients able to provide for their necessities would enjoy the moral satisfaction and influence of not becoming dependent upon charity for medical assistance, would be more leisurely attended to, visited at their own

homes, treated at an early stage of illness, and not compelled to tramp about for governors' letters at a sacrifice of time, wages, and health. Pauperism would be checked and the rates diminished. Such are the tempting results which hospital reformers and economists offer for the acceptance of the public, the profession, and the managers of hospitals; and their proposals, being founded partly on experience, are well worthy of consideration.

There are certain conditions upon which the successful establishment of provident dispensaries depends.

The first condition is that the gratuitous distribution of medical relief at the hospitals and dispensaries should cease. General dispensaries must be converted into provident dispensaries throughout London, and the general hospitals must act in concert with the provident dispensaries. It is impossible for provident dispensaries to be started, or, if started, to maintain their existence in the shadow of great general hospitals with their swollen out-patient departments, freely open to the sick without check or with useless checks, and of the general dispensary, which requires no payment. The out-patient departments of general hospitals and many of the dispensaries are worked by physicians and surgeons of established repute, whose names are freely advertised and known. Free admission and the advice of consulting physicians and consulting surgeons, whether really obtained or not, weigh too heavily against the provident dispensaries; and it has been shown that, as a matter of fact, in a central district of the metropolis, containing 5 general and 11 special hospitals, and 9 charitable and 7 poor law dispensaries, a "remarkable congestion of eleemosynary institutions, no provident dispensary has succeeded in establishing itself," that "as a general rule the provident dispensaries can subsist only in the rich districts of the West End (where if they are not chronically subsidised, they can, at least be guaranteed at starting), or else in outlying districts, where they are to a great extent removed from the competition of the charities." The Marylebone Dispensary, the oldest in London, was obliged, in 1875, to close its doors, being no longer able to stand against the increased competition of surrounding free dispensaries and out-patient departments.

The second condition is that the provident dispensary be assisted at its commencement by voluntary contributions. Although the object aimed at by the promoters of provident dispensaries, as of medical clubs, is to make them ultimately self-supporting, yet,

at the outset, it is absolutely necessary that there should be a guarantee fund for the purpose of providing the necessary buildings and the payment of the early expenses and the expenses of management. The conversion of general dispensaries would not involve much expense, but the foundation of new provident dispensaries causes considerable outlay. Sir Charles Trevelyan has thrown out a very good suggestion—that a portion of the misused charitable endowments in the metropolis should be devoted to this purpose.

The third condition is that the medical officers of the dispensary should be sufficiently remunerated. In the metropolis, according to Mr. Nelson Hardy, who took part in the discussion on Mr. Holmes' paper at the Metropolitan Branch of the British Medical Association, in March, 1878, the return made to the medical officers at most of the metropolitan provident dispensaries is inadequate. In only 3 out of 27 provident dispensaries did the amount divided in 1877 between the medical officers average £100 a-year, exclusive of the 10s. midwifery cases. In one it was as low as £15. Taking the total amount paid to medical men in the 13 dispensaries, and distributing it equally amongst 44 medical officers, it would give but £45 a-year to each of them, and this not, for the most part, in newly-established institutions, but including some of the oldest and best provident dispensaries in London, such as Camberwell, Paddington, and St. John's Wood. At 5 provident dispensaries nearly 25,000 cases of illness were treated by qualified medical men for rather less than 1s. a case. At Paddington the rate was not quite 7d. a case, at St. John's Wood 11d, and at Hampstead 1s. 8d. The provident dispensary at Haverstock Hill numbers 5,000 members and is very successful, £575 in 1876 and £648 in 1877 having been divided between 3 medical men, besides £8 to the midwife. In the provinces some of the provident dispensaries divide more. At Northampton nearly £2,000 have been divided in one year among 3 medical men, the one who received the largest share pocketing as much as £1,200.

The fourth condition of successful working is to obtain the sympathy and co-operation of the general practitioners of the district.

In the provinces the experiment of provident dispensaries has been carried further than in the metropolis, and has been conducted under more favourable conditions. Many provincial towns have provident dispensaries. Bedford has 2, Reading 1, Stony Stratford 1, Altringham a provident dispensary and hospital, with in-patients

as well as out-patients, Northwich 1, Derby 1 with 5,621 members, Ottery St. Mary 1, Plymouth 1, Torbay 1, converted from a general dispensary, with 1,700 provident members, Buckland Newton 1, Buckhurst Hill a provident society, Gloucester a provident dispensary, commenced as a general dispensary in 1831, and converted, in 1872, Kingsdown, Boscombe, Southampton, West Cowes, Winchester, Hereford, Erith, Tunbridge Wells, Leicester, Boston, Grantham, Northampton, Lichfield, Rugely, Kingston-on-Thames, Brighton, Eastbourne, Littlehampton, Coventry, Leamington, Downton, Salisbury, and Worcester, each 1 provident dispensary, and Swansea 2. At the Royal Albert Hospital, Devonport, the provident system is combined with a general hospital.

In Manchester provident dispensaries were established in 1874. It had been shown that 118,000 persons (22 per cent. of the population) received gratuitous medical relief at the hospitals and dispensaries in 1872. As the result of a conference, provident dispensaries were established on an extensive scale in Manchester and Salford, which were divided into districts for the purpose. In each district a provident dispensary was established, governed by a committee; and an association was formed, governed by a council, composed of the representatives of the charities in Manchester and Salford who would join the movement, and of the committees of the provident dispensaries. The following institutions decided to co-operate:—The Manchester Royal Infirmary, the Clinical Hospital, and the Children's Hospital, to which were afterwards added the Chorlton Dispensary and the Hospital for Incurables, whilst the Salford and Pendleton Royal Hospital, St. Mary's Hospital, and the Hulme Dispensary declined. In August 1875 there were 7 provident dispensaries, with 20,716 members, reduced to 16,596 in December of the same year. It was agreed by the co-operating charities that all patients should be relieved at their first visit, and that the names and addresses of applicants should be sent daily to the Central Association. As in London, a large number gave false or insufficient addresses, 1,056 out of 6,861; and 41½ per cent. of the remainder were in a position to become provident members.

The first effect of the establishment of provident dispensaries was to diminish considerably in 1875 and 1876 the number of out-patients attending at the affiliated charities, whilst those at the non-co-operating charities were increased; but in the later report, furnished by the sub-committee of the Outdoor Hospital Reform

Committee of the British Medical Association appointed to inquire into the working of the Manchester and Salford Provident Dispensaries Association, it will be seen that, whilst at the Clinical Hospital in 1877 the number had still further decreased, the number of out-patients at the Royal Infirmary, which had been reduced by nearly 4,000 in the early stage of the movement, had again been augmented by about 2,000, and the total was on the increase at the Children's Hospital, where the reduction had been about 3,000. On the other hand, the numbers at the Salford Hospital had fallen by more than 2,000 in 1877, and at St. Mary's Hospital by about 3,000, so that at the latter institution the numbers were 3,000 or 4,000 less than before the commencement of the provident system. The reduction in 1877 at Salford was due to an investigation of the out-door patients commenced in that year, but the reduction at St. Mary's Hospital remains unexplained. The sub-committee was refused information by the Provident Dispensaries Association, and thus unfortunately its investigations were very incomplete. The number of provident patients was diminishing. There was distinct evidence of improper cases being admitted to the benefits of the association. The medical profession at large were not satisfied with the working of the scheme. The general practitioners in the neighbourhood of the dispensaries were injured in their practice, good paying patients having been subtracted from them, whose weekly earnings should have entirely precluded them from charitable relief. Most of the practitioners who at first joined the dispensaries had retired, finding their pay paltry, their work considerable, and that many well-to-do folk and persons in good position were admitted as members. One medical officer found that half the members left at six months' end, and Dr. Watson's statement is pregnant with instruction and warning. He says:— "My chief reason for severing my connexion with the dispensary was that I was convinced, instead of lessening hospital abuse, it was merely opening another and wider door, as I found so many availing themselves of the charity for whom it was never intended, and there was no desire on the part of the lay committee to check this." The medical men also considered that the system of paying the collector so much per cent. on the money received a vicious one, as it acted as an inducement to him to admit unfit cases, the power of admission residing in his hands. Cases sent by the medical officers for investigation were left to the collector. So great was the

discontent that at one branch the medical officers resigned in a body, and there are now only three medical men attached to the dispensaries who were in practice before they were opened. The work is done by new men appointed at a fixed salary, and obtained in answer to advertisements to fill vacancies caused by the resignation or expulsion of the resident practitioners. The whole administration has been a failure. This result shows that the provident dispensary system is open to as much and even greater abuse than the present system of free, or virtually free, hospitals and dispensaries, and that very careful management and supervision are required to prevent such abuse. The limit of income should not be too high. The provident dispensary, with its weekly payment of the price of a pint of beer, is exactly suited to many of the patients who were considered by the London Hospital Committee of Investigation as entitled to gratuitous aid. If persons in better position are admitted it ought to be at a considerably higher rate, but it would be far better to limit the admission to working people and domestic servants, and to let tradesmen, if they please, form associations, appointing their own medical officers.

With such restrictions the author is in favour of a trial being given to the provident dispensary system, and he thinks very favourably of well-managed medical clubs, but before any measure for the introduction of provident dispensaries is generally adopted, it would be far better to have the whole state of the hospitals in London and the provinces, in Scotland and in Ireland, investigated by a Royal Commission. We are not concerned here with other than medical interests, but the critical state of the finances of some of the general hospitals, the very unsatisfactory condition of the out-patient departments, and the irregular distribution of hospitals, general and special, call for thorough investigation. There is a striking want of accurate statistical information in regard to numbers of patients and other matters. A Royal Commission should have power to compel the production of evidence. The whole subject requires to be entered into on the broadest basis in connexion with Poor Law medical relief, and especially with the sanitary condition of the homes of the poor, with which the amount of sickness has a very intimate association. The author's opinion is that any hospital scheme must be combined with the work both of Poor Law and sanitary medical officers, and that the same medical man should hold the appointment of Poor Law medical officer and medical officer of health. The working of the dispensary

system in the metropolis under the Act of 1867 is very unequal. Dr. Rogers has found that in all cases in which the Poor Law dispensaries came into contact with out-patient departments of hospitals, there were no patients at the former but those who required articles of food or other extra matters, while in the out districts where there were no hospitals, the poor law medical officers at the dispensaries were overwhelmed with work. In Ireland the Poor Law dispensary is abused, tickets being obtained by persons who are able to pay for medical advice. Many could afford to pay something for advice and medicine. In any amended scheme for the hospital out-patient departments it would have to be determined whether they should themselves be placed on a provident footing, or if not what changes should be introduced. The Sub-Committee on General Hospitals in 1870 was of opinion that the out-patient departments should be affiliated to provident and Poor Law dispensaries, and be utilised especially for the purpose of consultations between the members of the staff and the medical officers of the dispensaries and general practitioners in cases of peculiar difficulty, prolonged anxiety, and deep professional interest. Patients suffering from accidents, patients who had been in-patients and had been made out-patients, and patients with special diseases would necessarily have to be retained, the latter for the education of students; but in other respects the departments would be revolutionised. The question is one of peculiar difficulty, for a very radical change might stop the supplies of in-patients who are recruited from the out-patient department; but probably this loss could be compensated by the admission into the hospital of all curable pauper cases and the serious cases belonging to the provident dispensaries not considered suitable for treatment in their own homes. It has been pointed out that one of the chief evils of the present hospital system in London is the existence of a number of special hospitals of the same kind unconnected with general hospitals, and beyond the pale of the educational area. Surely it is quite unnecessary to have 6 Ophthalmic Hospitals, 3 Orthopædic Hospitals, 3 ear infirmaries, 12 children's hospitals, 7 institutions (one has 3 branches) for diseases of the skin, 5 for diseases of the throat, and 7 for women. This is the mischievous result of the uncontrolled action of the laws of supply and demand! Other special hospitals, such as the hospital for diseases of the heart and the hospital for stone are not needed at all. A reformed scheme would probably contain provisions for associating most of the special hospitals

with the general hospitals as special departments. One special hospital of each kind might be retained as a model hospital. These hospitals should be national institutions, centres of therapeutical improvement, schools for the higher education of the student, sources of knowledge to the general practitioner, and a means of comparison for foreigners with institutions in their own country, and focuses of special abilities and learning. The appointments should be given to the most distinguished specialists who were no longer connected with the special departments of general hospitals.

### HOSPITALS IN TOWNS IN ENGLAND WITH MEDICAL SCHOOLS ATTACHED.

In Bristol there are 2 general hospitals—the General Hospital (with 150 beds, 1,600 in-patients, and 12,000 out-patients); and the Royal Infirmary (with 250 beds); an Eye Hospital (with 11 beds, 179 in-patients, and 2,474 out-patients); and an Eye Dispensary (2,000 patients); a General Dispensary (7,973 sick patients, 491 midwifery cases); a Hospital for Sick Children and the out-door treatment of women (with 56 beds, 1,012 female out-patients, 2,405 children, and 383 in-patient children); a Lock Hospital (with 16 beds); and a Lying-in Institution.

In Liverpool there are 4 general hospitals—the Royal Infirmary, Lunatic Asylum, and Lock Hospital; 270 beds in the Infirmary, 61 in the Asylum, 60 in the Lock Hospital; the Northern Hospital (with 146 beds); the Southern Hospital (with 200 beds), and the Stanley Hospital (with 25 beds); 2 Hospitals for the Eye and Ear; an Infirmary (with 40 beds); and a Hospital (with 20 beds); a Dental Hospital; a Hospital for Consumption (12 beds); a Hospital for Heart Diseases (6 beds); a Hospital for Cancer and Skin Diseases (25 beds); a Hospital for Diseases of the Skin; a Hospital for Fistula (8 beds); a Hospital for Children (80 beds); a Lying-in Hospital (37 beds); a Seamen's Dispensary for Venereal Diseases; a Surgical Home for Diseases of Women (4 beds); and 3 Dispensaries.

In Manchester there are 5 general hospitals—the Royal Infirmary and Dispensary (304 beds), with Barnes' House of Recovery, Monsall (210 beds), and Barnes' Convalescent Home, Cheadle (140 beds); St. Mary's Hospital (50 beds); Salford and Pendleton Royal Hospital and Dispensary (60 beds); Ardwick and Ancoats Royal Hospital and Dispensary (50 beds); and the Clinical Hospital and

Dispensary for Children (46 beds), with a Convalescent Home (12 beds); 2 Children's Hospitals; the Clinical Hospital and Dispensary (46 beds); and the General Hospital and Dispensary for Sick Children, Pendlebury (140 beds); the Manchester Southern Hospital for Women and Children (19 beds); the Royal Eye Hospital (62 beds); the Manchester Hospital for Consumption and Diseases of the Throat (13 beds); the Manchester Ear Institution, 2 Hospitals for Skin Diseases (*inter alia*); the Manchester and Salford Lock and Skin Disease Hospital (50 beds); and the Manchester Hospital for the Skin, Cancer, Scrofula, and all Chronic Diseases. There is a large General Dispensary—the Chorlton, Rusholme, and Mossside Dispensary—attending to both home and out-patients, accidents, and dental cases.

At Oxford, the Radcliffe Infirmary contains 187 beds, and provides annually for about 1,100 in-patients and 3,500 out-patients. There are a Lying-in Institution, and a Medical Dispensary and Lying-in Charity.

At Cambridge, Addenbrooke's Hospital has only 120 beds, with about 850 in-patients and 2,500 out-patients annually, so that Oxford has more material for clinical teaching.

At Leeds there are—the General Infirmary (310 beds); the Leeds Hospital for Women and Children (45 beds, 375 in-patients, 1,356 out-patients); the Leeds Fever Hospital (80 beds, 280 patients); the Leeds Public Dispensary (25,000 patients), and the Leeds Dispensary for Diseases of the Skin, Cancerous and Scrofulous Affections.

At Sheffield there are—the General Infirmary (180 beds, and 1,500 in-patients, 1,800 out-patients, and 5,000 casualties); the Sheffield Hospital for Women (12 beds, 90 in-patients, 1,150 out-patients, 376 midwifery); the Sheffield Public Hospital and Dispensary (104 beds, and 34,000 patients); the Sheffield Free Hospital for Children (12 beds, 10 in-patients, 6,000 out-patients).

In Birmingham there are—the Queen's Hospital (120 beds, with detached fever wards, 1,702 in-patients, 14,415 out-patients); the General Hospital (256 beds, 3,032 in-patients, 25,725 out-patients); the Borough Hospital (150 beds); the Birmingham and Midland Eye Hospital (50 beds, 774 in-patients, 10,750 out-patients); the Birmingham and Midland Free Hospital for Sick Children (66 beds, 500 in-patients, 30 home patients, 15,900 out-patients); the Birmingham and Midland Hospital for Women (17

beds, 119 in-patients, 2,092 out-patients); the Birmingham Lying-in Charity (900 midwifery patients); the Birmingham and Midland Counties Ear and Throat Infirmary (1,098 patients); the Birmingham General Dispensary (22,000 patients); the Birmingham Orthopædic and Spinal Hospital (20 beds); and the Birmingham Dental Hospital (3,800 patients).

At Newcastle-upon-Tyne there are—the Infirmary (230 beds, 1,616 in-patients, 2,112 out-patients, 13,171 casuals); the Fever Hospital (61 beds, 58 patients); the Hospital for Diseases of Children (24 beds, 116 in-patients, 2,355 out-patients); the Hospital for Diseases of the Skin (500 patients); the Hospital for Women (4 beds, 200 patients); the Lying-in Hospital (12 beds, 34 in-patients, 254 out-patients); the Infirmary for Diseases of the Eye (8 beds, 50 in-patients, 1,291 out-patients); the Dispensary (with 12,687 patients); the Royal Victoria Hospital for the Blind (43 beds, inmates, 21 males and 17 females); and the Northern Counties Institution for the Deaf and Dumb (inmates, 60 boys and 36 girls).

At Durham, there is the County Hospital (44 beds, 234 in-patients, 696 out-patients, 50 casual patients).

It will be seen from the list of institutions at each educational town that there is ample material for clinical teaching.

In addition to the institutions already mentioned, the provinces are provided with county hospitals, general dispensaries, a number of cottage, village, or district hospitals in the smaller towns and villages, a few special hospitals, and the provident dispensaries enumerated previously.

### HOSPITALS IN DUBLIN, BELFAST, CORK, AND GALWAY.

In Dublin there are 10 general hospitals and 16 special hospitals—

The special hospitals comprise 3 Eye and Ear Hospitals, with a total of 57 beds; 1 Dental Hospital; 2 Fever Hospitals (240 beds); 1 Hospital for Incurables (180 beds); an Infirmary for Diseases of the Skin (25 beds); 2 Lying-in Hospitals—the Coombe Lying-in, with 40 beds, and the Rotunda Lying-in Hospitals; the Rotunda Auxiliary Hospital for Diseases of Women; 2 Children's Hospitals, 1 with 21 beds; 1 Provident Infirmary and General Dispensary, with 15 beds; Simpson's Hospital, with 80 beds, for blind and gouty patients; 1 Female Lock (Government) Hospital, with 150 beds.

*General Hospitals, Dublin.*

| Name | Beds | Remarks |
|---|---|---|
| Adelaide Hospital - - - | 140 | Children's Wards. Detached Fever Hospital. |
| City of Dublin Hospital - - | 130 | Special Wards for Eye, Ear, and Diseases of Women and Children. Extensive Daily Dispensary. |
| Dr. Steevens' Hospital - - - | 250 | Distinct Wards for Fevers, Syphilis, Eye Diseases, and Female Diseases. |
| Jervis-street Hospital - - - | 80 | Large Dispensary. |
| Mater Misericordiæ Hospital - - | 230 | Wards for Fever and other Contagious Diseases. |
| Meath Hospital and County of Dublin Infirmary | 120 | Children's Wards and large Dispensary. |
| Mercer's Hospital - - - | 80 | — |
| *Richmond (Surgical) Hospital - | 110 | — |
| *Whitworth (Medical) Hospital - | 82 | Extern Medical Department. |
| *Hardwicke (Fever) Hospital - | 120 | — |
| St. Vincent's Hospital - - - | 100 | Children's Ward. Extensive Dispensary and Convalescent Home. |
| Sir Patrick Dun's Hospital - - | 80 | — |

In Belfast there are—the Royal Hospital (160 beds, 1,703 in-patients, 18,486 out-patients); the Charitable Society Infirmary (Infirmary beds 36, house 190, and a ward for incurables containing 20 beds); the Hospital for Diseases of the Skin (20 beds, 100 patients); the Hospital for Sick Children (50 beds, 70 out-patients daily); and the Ulster Hospital for Children (16 beds, 129 in-patients, 3,916 out-patients); the Lying-in Hospital (15 beds, 174 in-patients); the Ophthalmic Institution or Eye and Ear Hospital for the Poor (30 beds, 100 in-patients, and 1,120 out-patients); and the Ulster Eye, Ear, and Throat Hospital (30 beds, 158 in-patients, and 3,998 out-patients); the Samaritan Hospital for Women and Children (30 beds, 118 in-patients, 1,224 out-patients); the Throne Hospital for Chronic Diseases of Children (32 beds, 120 patients); and the Throne Convalescent Hospital (30 beds, 112 patients).

At Cork there are—the North Charitable Infirmary (100 beds,

* Government Hospitals of the House of Industry.

and 938 in-patients); the South Charitable Infirmary and County Hospital (108 beds, 1,116 in-patients, and 8,629 out-patients); the Queenstown General Hospital (40 beds, 100 in-patients, 1,800 out-patients) the Mercy Hospital (80 beds); the County and City of Cork Hospital for Diseases of Women and Children (23 beds, 157 in-patients, 867 out-patients); the Cork Fever Hospital and House of Recovery (66 beds, 467 patients); the Lock Hospital (46 beds, 300 in-patients); the Lying-in Hospital (15 beds, 235 in-patients); the Ophthalmic and Aural Hospital (20 beds, and 1,700 out-patients).

At Galway there is the County Infirmary (80 beds, 620 in-patients, and 730 out-patients).

In the capital of each county in Ireland other than the above-named there is a County Infirmary (beds varying from 117 at Londonderry to 40 at Carlow, and 39 at Longford).

SCOTTISH HOSPITALS—EDINBURGH, GLASGOW, AND ABERDEEN.

At Edinburgh there are—the Royal Infirmary (520 beds, 240 being surgical, 5,000 in-patients, 12,000 out-patients); Chalmer's Hospital (40 beds, 270 in-patients, 1,900 out-patients); the Royal Hospital for Sick Children (72 beds, 350 in-patients, 3,773 out-patients, 410 home-patients); the Royal Maternity Hospital; the Hospital for Incurables (24 beds); the Eye Infirmary (6 beds, 900 patients); the Eye Dispensary (2,000 patients); 2 Ear Dispensaries (300 patients at each); the Dental Dispensary (3,000 patients); the Fountainbridge Dispensary (3,000 in-patients, 700 out-patients); the New Town Dispensary (9,116 patients prescribed for at the Dispensary, and 2,321 out-patients); the Royal Dispensary and Vaccine Institution (11,739 patients); a Medical Missionary Training Institution Hospital and Dispensary (13 beds, 2,585 patients); and a Medical Missionary Training Institution and Dispensary (9,589 patients). There are also the Leith Hospital and Edinburgh and Leith Humane Society and Dispensary (77 beds, 406 in-patients, 6,126 out-patients).

At Glasgow there are—the Royal Infirmary (570 beds, 4,979 in-patients, and 17,367 out-patients); the Western Infirmary (205 beds, 1,930 in-patients, and 10,000 out-patients); the Eye Infirmary (70 beds, 7,807 patients); the Ophthalmic Institution (26 beds, 355 in-patients, 3,663 out-patients); the Lock Hospital (81 beds, 456 in-patients); the Dispensary for Diseases of the Chest

and Throat; the Dispensary for Diseases of the Ear (800 patients); the Dispensary for Skin Diseases (1,200 patients); the Maternity Hospital (24 beds, 304 in-patients, 927 out-patients); and the Public Dispensary.

At Aberdeen there are—the Royal Infirmary (250 beds, 1,639 in-patients, 2,289 out-patients); the Hospital for Sick Children (26 beds); Hospital for Incurables (28 beds, and 28 patients); the Ophthalmic Institution for Diseases of the Eye and Ear (1,000 patients); and the Aberdeen Dispensary (5,000 patients, about one-third being visited at their own homes).

## THE STATE OF THE EXAMINATIONS.

Those who are acquainted with the state of the examinations for the minimum qualifications to practise medicine and surgery in the period immediately preceding the passing of the Medical Act, and the establishment of the General Medical Council, must admit that immense advances have been made within the last twenty-two years. At the College of Surgeons of England the *entire* examination of candidates for the membership lasted exactly one hour. Each candidate presented himself successively at four tables, at each of which he was examined orally for a quarter of an hour. At two of the tables he was examined in anatomy, and at the other two in surgery. A few bones and preparations were spread out on the tables. There was no written examination unless the examiners were not quite satisfied with a candidate. In this case a written examination was prescribed in order to give him another chance of passing. The examination was conducted in the evening. The coming Medical Council cast its shadow before, and the College of Surgeons suddenly awoke to the consciousness that its examinations were capable of improvement. With a prescient eye to the inevitable, the College divided the examination into two parts—a primary, or anatomical, and a pass, or surgical examination. Similar action was taken at other corporations. One of the earliest recommendations of the General Medical Council was that the examinations at all the boards should be divided into two parts—the first examination to include the earliest subjects of study, such as anatomy, physiology, chemistry, &c., and the latter to include medicine, surgery, and midwifery, or the subjects which form the basis of professional practice. The first examination was not to take place earlier than the end of the second winter session, and the second or final at the termination

of the curriculum. This recommendation was accepted by the examining boards universally. Another recommendation which has been carried out by the Corporations—thereby realising, approximatively at least, the conceptions of the enlightened founder of the Carmichael Prize Essays—was that the examinations in all subjects should be conducted by written papers, by oral questioning, and as practically as possible. Thus at the first examination candidates are tested—first, by a printed paper of questions, a certain proportion of which it is essential for them to answer; secondly, by being questioned on specimens of bones, ligaments, and dissected parts of the body, either fresh or preserved, and perhaps in rare instances by having to perform actual dissections for themselves. In physiology there is sometimes a separate paper, but in other cases the questions are intermingled with those in anatomy, and there is a *vivâ voce* examination which includes the recognition of specimens under the microscope. At the College of Surgeons of England the examination in physiology for the membership may be said to have borne the proportion of one-third of that in anatomy. Chemistry does not receive sufficient attention for the minimum qualifications, the examination in it being generally confined to a few printed and oral questions. In materia medica candidates are required to recognise specimens of drugs, as well as write answers to printed questions. In surgery the examination is generally efficient. At the College of Surgeons of England the examination includes surgical pathology, surgical anatomy, the recognition of diseases, and the use of surgical instruments and appliances. Medicine also, as far as possible, is made practical and clinical. Forensic medicine is neglected. Midwifery receives a fair share of attention at the Colleges of Physicians and Apothecaries' Halls. Diseases of women and special diseases have not yet had the importance assigned to them which they deserve.

The first professional examination at the Boards takes place, if the candidate is ready, at the end of the first eighteen months of medical study, or the end of the second winter session; the second professional examination after the completion of four years of study. At the Scottish Universities for the M.B. degree, and the Queen's University for the M.D., which is equivalent to the Scotch M.B. degree, there are three examinations. At the University of Glasgow there are four examinations. At Edinburgh, Aberdeen, and St. Andrew's, candidates may amalgamate the two first examinations.

When three examinations are held, the first comprises the scientific subjects of the curriculum—botany, chemistry, and usually physics. At Aberdeen, elementary anatomy and materia medica are added. Natural history, or zoology, or comparative anatomy is placed by some of the Universities in the first, and by others in the second examination. There is no uniformity of arrangement. The second examination is specially devoted to anatomy and physiology, and generally materia medica, but chemistry appears in it at the Queen's University, and at Aberdeen surgery and zoology and comparative anatomy, chemistry and materia medica having been placed in the first examination. The third examination includes all the subjects of professional practice.

At the other Universities there are like divergences. For the M.B. degree the Universities of Dublin, Durham, and Oxford prescribe two examinations; the Universities of Cambridge and London three. The University of London has admittedly occupied the foremost place as an examining body for the higher qualifications and medical degrees, both in its arrangements and its standard of requirement. The first professional examination, after matriculation, is called the preliminary scientific examination. It embraces inorganic chemistry, experimental physics, botany and vegetable physiology, and zoology. The second examination is called the first M.B. examination, and comprises anatomy, physiology, materia medica, and pharmaceutical chemistry, and organic chemistry. The third or second M.B. examination embraces general pathology, general therapeutics and hygiene, surgery, medicine, obstetric medicine and forensic medicine, surgical and medical anatomy, pathological anatomy and pathological chemistry being included in the questions on the subjects of examination. All the subjects of examination are treated both theoretically and practically. Papers are set, each containing three or four questions, and the candidates are allowed to write for three hours on each paper. In botany specimens are set before the candidate for description and determination of natural orders. In zoology specimens have to be described. In anatomy the candidate has to undergo examination on the dead subject, and, if necessary, to perform actual dissection. In physiology there are recognition and preparation of microscopic specimens. In chemistry there is practical analysis; in materia medica examination on drugs and recognition of specimens; in toxicology determination of seeds, &c., of poisonous plants and analysis of solutions containing

poisons; in medicine bedside examinations and diagnosis of cases presented to the candidate, and the same in surgery, with operations on the dead subject; in obstetric medicine practical demonstrations of obstetric operations on models, and explanations of the use of obstetric instruments placed before the candidate. The large number of rejections at each examination attests the severity of the ordeal. The preliminary scientific examination is particularly severe. In 1872 and 1873 more than half the candidates were rejected; latterly the proportion has decreased, but it is still abnormally high. In 1877, 76 out of 166 were referred to their studies. At the later examinations the proportion of rejected candidates does not usually exceed, and often does not reach, one-third. Just complaints are made from time to time against the character of the preliminary scientific examination. The standard has been raised too high, and with too little regard to the end for which the partial cultivation of the scientific subjects is demanded from the student of medicine. Candidates are required to cram themselves with abstruse details and minutiæ, which they disgorge as rapidly as possible when the trying ordeal has been surmounted. Success is no guarantee for greater eminence in the higher walks of the profession, and failure tells a tale of time and labour wasted without compensation in the value of the practical knowledge acquired and the discipline undergone during its painful pursuit.

The University of London presents a model in regard to the appointment, distribution, payment, and term of office of examiners. In the first place, the examiners are appointed by an independent body, the Senate, which consists of fellows of the highest distinction in politics, arts, science, law, and medicine, themselves ineligible for the offices to which they elect. The examiners are simply the best that can possibly be found. The appointments are open to all, and are made only in virtue of the attainments and distinction of the applicants. The most eminent of the candidates are selected. The term of office is four years, at the end of which time the examiner retires, and cannot be re-elected until he has been a year out of office. Two examiners are assigned to each subject. Each examiner reads the papers of all the candidates, and both are present at the oral examinations. All the examiners are adequately paid, and paid in proportion to the arduous character of their duties. This system appears to be as nearly perfect as any human system can be. If we compare it with that in vogue at the other corporations, we

generally find some one point, perhaps more, in which the system, as a system, is defective. The examiners, for instance, may have materially contributed to their own election. The body from which examiners are chosen may be too small and select. Some qualification—such as a money payment—may be demanded to render candidates eligible for election. In these cases the choice is necessarily limited, and, in certain special subjects, far too limited, for the selection of efficient examiners. Again, examiners may hold office either for too short a period or too long a term. The teachers of the students may be their examiners. Whatever advantages there may be in pupils being examined by their own teachers, there are greater disadvantages. At the University of London this sometimes occurs, but it is not the rule, and the defect is neutralised by the presence of a second examiner. Examiners may examine in several subjects. Lastly, the remuneration of the office may be quite inadequate. Illustrations of these points will be found in the following pages. The state and mode of examination at the different boards must be judged partly from the mode of appointment, mode and rate of payment, and distribution of the examiners, partly from the returns furnished to the General Medical Council of the number of candidates passed and rejected, and partly from the official reports of the visitors of the examinations deputed by the Council. In alluding to the reports it is proper to add that, in all probability, the chief defects pointed out by the visitors have been removed by the action of the corporations criticised.

### THE COLLEGES AND HALLS.

At the *Royal College of Surgeons of England* the examinations are conducted by separate Boards of examiners. There are the Court of Examiners, a Board of Examiners in Anatomy and Physiology, a Board of Examiners in Midwifery (now suspended), and a Board of Examiners in Dental Surgery. "The Court consists of ten members elected by the Council from the Fellows of the College," usually from the members of the Council, *occasionally* also, and to a small extent, from Fellows not Councillors. The Court superintends the carrying out generally of the regulations of the Council relating to the preliminary and professional education of students, and conducts the pass examinations in surgery and surgical anatomy of candidates for the diplomas of Fellow and Member of the College. During the collegiate year 1876–77 the Court

held two meetings for the examinations for the fellowships, and twenty-nine meetings for the pass examinations for the membership. As the diplomas of Member and Fellow are not conferred without the candidates producing either a degree, diploma, or licence in medicine, entitling to registration under the Medical Act, or a foreign diploma approved by the College, the Council has to appoint two examiners to conduct the examination in medicine. These appointments are generally held by Fellows of the College of Physicians of London. All the members of the Court of Examiners at the present time are members of the Council of the College. The president and vice-presidents of the College are members of the Court. Election into the Court takes place by ballot at special meetings of the Council. Every person elected to be a member of the Court pays twenty guineas prior to his first admission. A member of the Court is liable to removal by resolution of the Council if absent from more than six successive meetings without assigning a reason satisfactory to the Court, in which case the Court reports the matter to the Council. The Court of Examiners can hold such meetings and make such adjournments as may be judged expedient; and the president, or, in his absence, the senior vice-president, or, in his absence, the junior vice-president, may direct a special Court of Examiners to be held on any emergency. Members of the Court are paid in the following manner :—First, every member of the Court, present from the commencement until the termination of any meeting for the purpose of examination, receives one guinea; and, secondly, every member of the Court, present from the commencement until the termination of an examination for the diploma of fellow or member, receives an equal division of the sum determined by the Council for division, whether the person examined be approved or not. The total amount of fees paid to the Court of Examiners during the year 1876–77 was £3,181 10s. If divided equally among the ten members of the Court the sum would have yielded to each examiner £318 3s. The total number of meetings being 31, the average payment for each meeting would have been £10 5s. 3d. The two examiners in medicine received £220 10s.—£110 5s. each for 29 sittings. By the charter of 1852 each member of the Court of Examiners holds office for 5 years and is eligible for re-election. It has been the custom to re-elect examiners at the expiration of their term of office, unless some good reason has existed for not doing so.

The Board of Examiners in Anatomy and Physiology consists of nine members annually elected by the Council from the Fellows of the College. The board conducts the primary examinations in anatomy and physiology for the diplomas of member and fellow. During the collegiate year 1876–77 the board held 4 meetings for the fellowship, and 30 meetings for the membership. The fees paid to the board for the 34 meetings amounted to £1,845 6s., or £205 0s. 8d. to each member supposing an equal division, an average of £6 for each meeting to each member of the board. Among the members of the board were three members of the Council and of the Court of Examiners. Two retired in 1878; the third became the chairman of the board for 1879. The rate of payment of the examiners at the College is dependent, not upon the number of candidates passed, but on the number presenting themselves for examination. Rejections involve extra trouble to examiners, as each candidate rejected can appear again without additional fee. A second rejection involves payment of a fee of £5 5s. before the third attempt.

The examinations are conducted by printed papers and *vivâ voce*. At the primary examination for the Membership a paper containing six questions, two exclusively physiological, is set, and the candidate must answer four, including one of the physiological questions. At the *vivâ voce* each candidate is examined at three tables, ten minutes being allowed at each. The first ten minutes of the examination of the candidate are occupied with physiology. One or two specimens are given for recognition under the microscope, and questions are asked both on the structure and function of the tissues and organs of the body. At the anatomical tables the candidate is examined both on fresh and preserved specimens. The mechanical arrangements of the examination are very perfect. Examination of candidates from any particular school by the representative of that school on the board is avoided. For the paper and for each table a maximum and a minimum of marks is assigned, and there is a total minimum, which is higher than the total of each minimum added together. A candidate can only be rejected on the paper, or at any one table, whose replies are very bad. It is generally found that if a candidate exhibits decided deficiency in his paper or at one table he shows weakness also in the other parts of the examination. It may probably be said with truth that it is very rare for any candidate who ought to pass to be referred to his studies.

For the primary Fellowship examination there is a paper of four questions, including anatomy, physiology, and comparative anatomy. All the questions must be answered. The *vivâ voce* examination is conducted on a plan similar to that for the membership. The standard is higher.

The pass examination for the diploma of Member comprises a paper of six questions in surgery and surgical anatomy. Four must be answered. The *vivâ voce* examination is conducted at separate tables. There is a practical examination on topographical anatomy applied to surgery on the living subject, the candidate having to mark out the courses of arteries, to compress them, and demonstrate with blunt wooden instruments the steps of operations. There is also an examination on instruments and the application of splints, bandages, trusses, &c., and a clinical examination on patients suffering from the effects of injury or diseases, more or less chronic, including those of the eye and skin. Pathological specimens are shown. The examination in medicine includes a paper of three questions, and a ten minutes' oral examination.

At the pass examination for the Fellowship the range of surgical knowledge required is deeper and more extensive than that for the membership. The candidate has to perform operations on the dead subject. Cases are given for investigation, and the candidate has to write down the diagnosis and treatment of each.

The visitors in 1874 noticed the inadequacy of the examination in physiology at the primary examination for the membership—only one written question demanding an answer—and their report led to the addition of the ten minutes' *vivâ voce* in physiology. Other defects noticed were the absence of any examination in chemistry and materia medica, and the fact that the candidates were not obliged to perform actual dissections. With regard to the second or pass examination, the visitors noticed the addition of the alterations suggested in the report of the visitors in 1866–67 by the introduction of a medical examination, the examination of surgical patients, and the extension of time which had been given to the oral and practical examination.

Considerable dissatisfaction lately arose out of doors in regard to the conduct of the primary examination for the fellowship, and a large number of teachers of anatomy and physiology presented a memorial to the Council as the outcome of two meetings of teachers in London. The memorial to the President, Vice-

Presidents, and Council, referred both to the primary examination for the membership and to that for the fellowship as being uncertain in their action, and failing to afford a satisfactory test of a student's knowledge. The specific suggestions made by the memorialists were—1. That separate examiners be appointed, and separate papers set in anatomy, physiology, and comparative anatomy. 2. That in the written examinations there should be an increase in the number of questions both in anatomy and physiology; and 3. That a syllabus be furnished, defining the amount of comparative anatomy required for the primary examination for the fellowship. The inconveniences which candidates at the primary fellowship have experienced (for the grievances related almost exclusively to the fellowship) have been that the number of questions in the written paper have been so few, and that the candidates have been quite unable to meet the real requirements of the Board in comparative anatomy. The degree in which they have been tested in anatomy and physiology has borne a very inadequate proportion to the amount of reading and preparation which they had been obliged to undergo. The written questions being so few, the examination has partaken of the character of a lottery. Candidates who have been up to the examination have averred that they felt that "it was a toss up whether they would get through or not." The questions might be such as suited their acquirements, or might be so narrow in their scope and of such a nature that they might have omitted to include the subjects of some of them in their studies, although possessing a sufficient knowledge of anatomy and physiology to pass if a larger number of questions covering more ground had been set. Some candidates have said that they worked well at comparative anatomy, attended lectures, read manuals, and worked at museum specimens in the belief that comparative anatomy would be required, and that then either not a single question was asked, or else some single question was put with a very limited bearing, and perhaps from some out-of-the-way corner of the subject. So far as the complaints of candidates are concerned, it is clear that a sufficient number of questions should be set to remove any uncertainty of a really good and well-prepared candidate passing, and to form an adequate test. It is also clear that if comparative anatomy be demanded at all, the examination within the range adopted should be of a *bonâ fide* character; that the extent of the examination should be clearly defined, and that candidates should

not be required or led to devote a good deal of time to preparing the subject at the expense of more important matters, and then be sent empty away. So much as this common sense and common justice dictate. The request for the appointment of separate examiners in anatomy and physiology was a request rather from the teacher than the candidate, and stood on a different footing. It was not so simple a question, nor was the answer to be given quite so obvious as the memorialists appeared to think. For a high and competitive examination like an examination at the University of London, separate examiners are indispensable, but experience proved that there was a good deal to be said on the other side, in reference especially to the examination in anatomy and physiology for the membership of the College of Surgeons. If such physiology only be demanded as is settled, sure, and applicable to practice—such as is illustrative of anatomy, and must always accompany the knowledge of anatomy if anatomy is to be a living science and not a mere dead catalogue of names and relations—it might remain an open question whether separate examiners in each subject are necessary or desirable. The decision of the Council to separate the examinerships in anatomy and physiology has been determined probably by considerations of a more general character. Anatomy and physiology are taught separately by the regulations of the College itself. Physiology is a rapidly growing science, and it is impossible for the practising surgeon who has other sciences to cultivate to keep fully abreast of the physiological knowledge of the day. Separate examiners and separate papers will induce the student to attach greater importance and to give more time to the cultivation of physiology. The General Medical Council has recommended separate examiners in each subject of study, and it is not desirable for the College too frequently to evade compliance with the reasonable recommendations of the Council. That these and other considerations should have prevailed cannot either be wondered at or regretted, but it must be added that no countenance has been given by the decision to the unjust and absurd allegations to which some have not hesitated to afford currency concerning the conduct of the examinations and the action of individual examiners.

At the *Royal College of Surgeons of Ireland* there is a Court of Examiners consisting of eight members. By the charter it is provided that examiners shall not be capable of being elected members of the Council so long as they hold the office of examiners, and

such examiners so elected, if professors, or lecturers, or teachers, shall, so long as they hold the office of examiners, cease to hold the office or perform the duty of professors, lecturers, or teachers, except as clinical lecturers in hospitals. Members of the Council are ineligible as examiners. The examiners are elected by the Council, and are entitled to such salary, emolument, and reward, as the said Council shall, by any rule or by-law, provide. When appointed, the examiners make a declaration that they will discharge their duties to the best of their knowledge, skill, and judgment, "without hatred, partiality, affection, favour, or fear," "justly, equally, and faithfully." The examiners are elected annually, and are eligible for re-election from year to year. The sum of one guinea is paid to each examiner for each candidate (for the Letters Testimonial), in the proportion of one-seventh for each examination. Each examiner is allowed his fee only for those days on which he shall be actually present at an examination. The apparent working of this rate of payment is that each examiner receives about £100 a year more or less.

Stated examinations for the Letters Testimonial are held in April, July, and November, the candidates being divided into two classes—junior and senior—or, in other words, being subjected, as at all the other Colleges, to two examinations—a primary and a pass examination. The fee for the primary examination is five guineas, and is not returned to a rejected candidate. The fee for the pass examination is fifteen guineas, and is returned to the rejected candidate. Every rejected candidate applying for re-examination has to reimburse the College in the necessary expense of re-examination. The entire court of examiners is summoned to attend on each day devoted to the *vivâ voce* examinations, and at the end of the examinations on each day they assemble and adjudicate upon the marks handed in on behalf of each examiner. There are three examiners for the diploma in Midwifery. The opinion of the visitors to the examinations for the Letters Testimonial was that the examination was defective in several particulars. The number of questions set was insufficient, and the time allowed for writing as well as for reading the answers was inadequate. The system of marking would allow candidates very ignorant of the essential subjects of anatomy and physiology to pass. Each of four examiners—two in anatomy, one in physiology, and one in materia medica—could give a maximum of fifteen marks, and

twenty were sufficient for a pass. Fifteen marks given for materia medica would almost ensure a pass in anatomy and physiology. The examiners were selected from gentlemen who were *not* professors or teachers in any school of medicine. The choice of good examiners thus became extremely difficult. The examination of the senior class was not free from defects. The branches of the examination were conducted in too hurried a manner. The answers of the candidates could not be obtained by the visitors, as it was the practice of the College to destroy the candidate's papers as soon as the examiner had read them. The representatives of the College at the Council explained that the two written questions in anatomy and the one in physiology were supplemented by an oral examination of forty-five minutes—thirty minutes in anatomy and fifteen in physiology—and that the College had taken steps to prevent the possibility in future of any examiner ensuring the passing of a candidate. The papers of candidates for the Letters Testimonial were torn up at once, and had been so for years. Every facility in future would be afforded to visitors. The representative of the College also called attention to the following paragraph relating to the examinations in the report of the visitors:—" In conclusion, we may remark that the good points of this examination are sufficiently obvious. It combines in a very appropriate and advantageous manner a written, an oral, a clinical and a practical examination, and if efficiently conducted it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments. Its defects, on the other hand, as at present conducted, are no less patent, and we have the less hesitation in referring to them, since we have reason to believe that they are recognised by several members of the Council, and are likely to be in part removed by changes about to be adopted."

At the *Royal College of Surgeons of Edinburgh* there are twelve examiners and four assessors to examiners. The twelve examiners are elected at the annual meeting in October. Each fellow present gives a signed list to the secretary containing the names of twelve fellows for performing the duties of examiners for the coming year, all of whom must have been fellows for the space of one year. Those fellows who receive the greatest number of votes are elected. In case of an unexpected vacancy a special meeting is called to fill it. The 28th, 29th, and 30th by-laws, in the edition of 1867, run thus:—" All meetings of the examiners shall be held in the hall at

such hours as the examiners shall fix, and £1 1s. shall be allowed from the funds for each examiner present. Examiners not present at the appointed time shall incur a fine of 2s. 6d. If they be later than twenty minutes the fine shall be 5s., and if absent altogether 10s. 6d. Any examiner may send another examiner as a substitute. Examiners shall not be obliged to continue their sederunts for longer than two hours and a half at one diet." These arrangements apply to the examinations for the Licence. For the Fellowship a special board of examiners is constituted of four of the twelve examiners and three assessors. A fee of £1 1s. is allowed from the funds to each member of the board. Although the board is called an examining board, it only examines the *claims* of candidates for the Fellowship.

In the year ending the 30th September, 1877, the fees to examiners amounted to £269 17s., so that each examiner only received about £22. Members of the Council are eligible to an office which cannot be greatly coveted. The same examiners appear to examine in all the necessary subjects.

The visitors did not think that the anatomical examination was up to the standard, but considered that the clinical examination was long and searching.

*The Faculty of Physicians and Surgeons of Glasgow.*—The Board of examiners consists of nineteen members.

The visitors in 1874 happened to attend on the 12th of August, when two candidates presented themselves for examination in anatomy. Both the examiners *had gone grouse shooting.* One of the other examiners had to officiate. The mode of testing the candidates in anatomy and physiology and the clinical examination were considered defective. The visitors remarked that the object of dividing the professional examinations into two was to obtain a higher standard of knowledge from the student, and that "this object is defeated if it be known that a student may pass who, when asked so large a question as to the distribution of the eighth pair of nerves, can say all that he has to say upon it in eight printed lines." Examiners were chosen only from the resident fellows, about 90 in number. Examination in anatomy lasted twenty minutes, and in physiology five minutes. The examination in clinical surgery did not include bandaging, or the management of fractures and dislocations, or the display of pathological specimens, or the performance of operations on the dead subject.

At the *Royal College of Physicians, London*, there are two distinct Boards of examiners—one for the Membership and the other for the Licence. The Board of examiners for the Membership consists of the president and the four censors, who are elected annually, being eligible for re-election. The examiners for the Licence are ten in number. They are nominated by the Council, and must be elected by a majority of the fellows present at the meeting at which they are nominated. They are chosen from the fellows. Examiners are re-eligible, provided that one examiner in each subject retires annually, and that no fellow is re-eligible who has been in office three years until the lapse of one year at least. An examiner elected censor vacates office. Two persons, not fellows, are elected examiners in surgery. For his services generally the president receives an honorarium of 200 guineas a-year or more, whilst the work of the censors is acknowledged by the award of honoraria of 50 guineas a-year each. The payments to examiners in 1877 amounted to £931 10s. This sum divided equally among twelve examiners would give £77 12s. 6d. to each examiner.

The visitors in 1875 considered that in the pass examination for the Licence the clinical examination was unsatisfactory. Nine candidates in one ward were assigned to one examiner. Too much stress was laid on note-taking, too little on knowledge of the pathology and treatment of the diseases in the cases given. The system of marking was imperfect. Too few questions were given in materia medica and chemistry in its application to pathology, pharmacy, and toxicology. There were no arrangements for examining in medical jurisprudence. The oral and written examination on chemistry and materia medica were conducted in the same room and at the same time. Visitors recommended that there should be *two* examiners for the *vivâ voce* and clinical examinations, that the oral and written in materia medica should be separate, and that fundamental subjects should be relegated to the primary examinations. In other respects the examinations were considered good. At the Council the representative of the college stated that the occurrence of having only one examiner at the clinical examination to nine candidates was accidental and exceptional. With regard to the pass examination for the Membership, the visitors reported very favourably, as being well and judiciously conducted. The written, clinical, and oral examinations were good tests of the practical knowledge of the candidates. The introduction of more physiology, pathology, and

histology was recommended, together with the exhibition of specimens of tissues, healthy and morbid, which candidates should be required to identify, and on which they should be questioned.

At the *King and Queen's College of Physicians, Ireland*, the president and the four censors are, or were, the examiners for the Licence. Each censor or examiner is paid half a guinea for every examination in which he has taken part. Meetings for examination of candidates take place on the first Wednesday of each month, with the exception of August and September, when no College business is transacted, except in cases of emergency. At meetings for examination no other business is transacted save the consideration of applications for examination. The president may summon additional meetings. In the absence of the president, the vice-president acts for him as examiner. The report of the visitors in 1875 on the examination in medicine and midwifery for the Licence was favourable. The examination was described as long and painstaking. Only one pathological specimen was exhibited, and no other provision was made for testing the candidate in pathology. The examination for the diploma in Midwifery was so far defective that it did not test the practical knowledge of the candidates, a pessary being the only instrument shown, or about which questions were asked.

At the *Royal College of Physicians of Edinburgh* the examiners, twenty-one in number, are elected by the Council at the annual meeting, and continue in office one year. There are fixed days for the examinations. The visitors' report was less satisfactory than the examinations appeared to be. It was imperfect and scanty. The written examinations were approved, but the visitors were unable to attend the oral.

At the *Apothecaries' Hall in London* the master, wardens and assistants choose twelve examiners annually. The examiners form a Court of Examiners and meet every Thursday at the hall for the examination of the candidates for the Licence. Each examiner receives £100 a year. The subjects in which each examiner questions candidates are assigned by the Court.

The report of the visitors in 1874 was, on the whole, favourable. The questions asked were very comprehensive—too comprehensive for the time allowed for writing the papers. The best candidates were obliged to hurry, and answer in a superficial way. The Society had carried into effect the recommendations of the previous

visitors by presenting patients to the candidates for the investigation of their cases in the presence of the examiners, and by conducting the oral and written examinations on separate days.

At the *Apothecaries' Hall, Ireland,* the examiners must be shareholders. The examiners are also directors. Shares are sold by public advertisement for the purpose of giving a qualification.

The report of the visitors in 1875, with reference to botany, chemistry, and pharmacy, at the first examination, was favourable. The examination in anatomy and physiology was deemed insufficient. No dissections were required, and the oral examination in anatomy was confined to osteology. The oral examination in physiology was limited to ten minutes. At the second or final examination for the Licence the clinical examination was imperfect. Diagnosis only was required—no questions being asked in regard to symptoms, prognosis, differential diagnosis, or treatment. At the clinical examination there were only two candidates, both of whom were rejected, although the visitors were favourably impressed by them.

*The Conjoint Examinations of the Colleges of Physicians and Surgeons of Edinburgh.*—In 1874 the visitors' report of the conjoint examinations of the Colleges of Physicians and Surgeons of Edinburgh was discussed at the Council. The primary examination was not considered severe, but all the candidates, five in number, were rejected. The pass examination was not entirely satisfactory. Too many subjects were allotted to one day. Several questions were put in the papers; and, as only two or three were expected to be answered, the easy questions were selected by the candidates and the others omitted. Different examiners conducted the different parts of the examinations in medicine, surgery, and midwifery, written, oral, and clinical. Surgical anatomy and surgery did not receive sufficient attention.

### THE SCOTTISH UNIVERSITIES.

At the *University of Edinburgh* the examiners for the degrees are the professors in the Faculty of Medicine, assisted by the following examiners, *ab extra*:—

One each in anatomy, midwifery, and clinical surgery, elected for 3 years.

One each in botany and medical jurisprudence, elected for 4 years.

One each in chemistry, practice of physic, and natural history, elected for 5 years.

One each in pathology and materia medica, elected for 6 years.

One each in clinical medicine and institutes of medicine (physiology), elected for 7 years.

These examiners are appointed by the University Court. The thirteen external examiners in the Faculty of Medicine received £50 each in 1875–76.

The report of the visitors to the first and second professional examinations in 1875 was very favourable. The midwifery professor conducted entirely the midwifery examination, the co-examiner taking notes. The report on the final examination for the M.B. degree was also favourable. The visitors suggested that one or two more cases might be given to the candidates in the clinical examination.

At the *University of Aberdeen* the examiners for the degrees in medicine are the professors in the Faculty of Medicine and six persons appointed annually by the University Court at a salary of £30 each, voted by Parliament. The report of the visitors was very favourable. The practical examination in anatomy was conducted in the dissecting room, on the dissected subject, and afterwards there was an oral examination, lasting twenty minutes.

At the *University of Glasgow* the examiners for the medical degrees are the professors in the Faculty of Medicine, with seven examiners appointed *ab extra*, at a salary of £40 each. The assistant examiners are appointed annually by the University Court.

The report of the visitors in 1874 stated that the examination in physiology appeared to be of too elementary a character. The questions asked in the written and *vivâ voce* did not seem calculated to the second set of visitors "to afford sufficient opportunity for testing the knowledge of the candidates. The answers were for the most part poor, and the value assigned to them, as indicated by the marks given, was much above their merit." The first set of visitors considered that dissections and some test of the candidate's knowledge of practical physiology, histology, and physiological chemistry should be introduced into the examination for advanced candidates, and more time should be given for the written answers to questions. The final examinations were considered good.

At the *University of St. Andrews* the examiners for the university medical degrees are the professors in the Faculty of Medicine and four examiners appointed annually by the Senatus Academicus. The

additional examiners are eligible for re-election, and their salary is fixed by the Senatus Academicus, with the approval of the Court.

The report of the visitors in 1875 was unfavourable, both with regard to the examinations for the degrees conferred on those who pass through the prescribed curriculum of study and examinations, and in regard to the examinations for the M.D. degree of the ten registered practitioners on whom the University is allowed annually to confer it. The former examinations were considered as not reaching the requisite standard. For the M.D. degree the practice has been to examine the testimonials of those who apply for admission to the degree, and to select ten candidates for examination. If any fail to pass, others are selected. The visitors suggested that a larger number of candidates should be admitted to an examination of a higher order, and that the selection should be made according to previous professional distinction and the results of the examination.

### THE IRISH UNIVERSITIES.

At the *University of Dublin* the Courts of Examiners for the medical degrees are thus composed:—

| | Externs | Teachers |
|---|---|---|
| 1. Botany and materia medica, | 1 | 2 |
| 2. Physics and chemistry, | 1 | 2 |
| 3. Descriptive anatomy, | 1 | 2 |
| 4. Medical degree, | 3 | 6 |
| 5. Surgical degree, | 2 | 4 |
| 6. Obstetric degree, | 1 | 2 |

The professors of the School of Physic furnish to the Provost and Senior Fellows before the 10th of December of each year a list of eighteen names of persons considered by them qualified to act as extern examiners—three for botany and materia medica, three for physics and chemistry, three for descriptive anatomy, three for clinical medicine, three for institutes of medicine (including medical pathology), and three for ophthalmic surgery. The extern examiners are appointed every year in the month of January. The examiners for the degree in obstetric science are the King's professor of midwifery, the professor of comparative anatomy and zoology, and an extern examiner.

The report of the visitors in 1875 was favourable. The previous examination at the School of Physic, T.C.D., was a very good one,

although no dissection was required. The candidates are marked by both examiners; if they agree the candidates pass or are rejected; if they disagree the other members of the board of examiners are consulted and settle the question. The report on the final examination was also favourable.

At the *Queen's University, Ireland*, the examiners for the medical degrees are professors at the Colleges of Belfast, Cork, and Galway, and ten extern examiners—two in medicine, two in surgery, two in medical jurisprudence, two in materia medica, and two in midwifery. The professorial examiners include three in anatomy and physiology, three in chemistry, and three in natural history, one of each from each of the Queen's Colleges. The examiners are appointed by the Senate.

The visitors in 1874 reported on the "preliminary" examination. They found that the standard for the "preliminary" differed to a very considerable extent. Belfast was greatly in advance of the others. In all cases the mathematical examination was very meagre. Twice as much Greek was required at Belfast as in Cork, and twice as much in Cork as in Galway, and nearly the same proportion was observed in regard to Latin. The examinations were scarcely sufficient at any of the three Colleges to ensure that the successful candidates should have had even a very moderate school education, and at two of the Colleges were in some respects little more than a farce.

The report on the professional examinations was favourable. The examination in anatomy was spoken of very highly. Dr. Humphry said that it was perhaps the best in the Empire. The visitors of the second examination were impressed with the general excellence and thoroughness of the examinations which they witnessed, as far as they went. The clinical surgical examination, however, was rather meagre, and the medical clinical, though *bonâ fide*, was insufficient. The midwifery examination was not sufficiently extended or searching to justify the granting of a separate midwifery diploma.

### THE ENGLISH UNIVERSITIES.

At the *University of Oxford* there are three examinations for the degree of M.B.—the first conducted by the Regius Professor of Medicine and three persons who have been admitted to regency either as masters of arts or as doctors, and who are nominated yearly

by the Vice-Chancellor, subject to the approval of Convocation; the second by the Regius Professor and two Doctors of Medicine, nominated in like manner. For the degree of M.D. a dissertation on a medical subject has to be read in the presence of the Regius Professor. The examiners in preventive medicine are the Regius Professor of Medicine and four other persons not necessarily members of the University appointed by the Vice-Chancellor, subject to the approval of Convocation.

The report of the visitors to the examinations was favourable. At the first examination for the degree of M.B. dissections were not required. The pass examination was full, searching, and painstaking. The questions in all the subjects had a practical bearing. There was no examination in surgery, and of four examiners three were professors.

At the *University of Cambridge* there are three examinations for the degree of Bachelor of Medicine. The examiners for the first examination, which comprises mechanics and hydrostatics, botany and chemistry, with heat and electricity, are two in number, and are nominated annually by the Board of Medical Studies, and elected by the Senate. For the second examination, which comprises the elements of comparative anatomy, human anatomy and physiology, and pharmacology, the examiners are the Regius Professor of Physic, and two examiners nominated annually by the Board of Medical Studies, and elected by the Senate. For the third examination, which comprises pathology and practice of physic, clinical medicine, and medical jurisprudence, the examiners are the Regius Professor of Physic, and two Doctors of Medicine nominated annually by the Board of Medical Studies, and elected by the Senate. For the degree of M.D. the examiners are the Regius Professor of Physic and an assessor. For the degree of Master in Surgery the subjects of examination are surgical anatomy, pathology, and principles and practice of surgery, clinical surgery, and midwifery, and the examiners are the Professor of Anatomy, and two examiners, being Masters in Surgery or Fellows of the Royal College of Surgeons of England, nominated annually by the Board of Medical Studies, and elected by the Senate.

The Board of Medical Studies consists of the Regius Professor of Physic, the Professors of Chemistry, Botany, and Anatomy, the Downing Professor of Medicine, the Professor of Comparative Anatomy, and others.

The visitors gave in 1875 a very favourable report to the Medical Council. The absence of an examination in surgery for the M.B. degree was noted. The professorial element is only represented on the Board of Examiners for the three examinations in medicine by the Regius Professor of Physic, who was appointed to secure the continuity of the examinations.

At the *University of Durham* it is provided in the regulations of the University that each examination shall be conducted by three or more examiners nominated by the Warden, and approved by Convocation: that no tutor shall examine his own pupil *vivâ voce* at any public examination, and that all questions arising among the examiners as to the framing of questions, the rejection of candidates, or any other matter, shall be determined by a majority of votes, the senior examiner having a casting vote. In the calendar for 1878 there are ten examiners for the degrees of Bachelor and Doctor of Medicine, eight being connected with the University of Durham College of Medicine at Newcastle-on-Tyne, and two elected *ab extra*.

The visitors recommended in the report presented to the Medical Council in 1875, that there should be two examiners in chemistry, and alluded to the fact that the examiners were the professors and teachers. They also pointed out as an objectionable feature the arrangement under which candidates who had passed well in several subjects were allowed to pass in these, and take up again in the course of a few weeks another in which they had failed.

*The University of London.*—The examiners are appointed by the Senate. No fellow or member of the Senate is eligible. Two examiners are appointed in each subject annually, but examiners are eligible to hold office for four consecutive years.

The following is a list of the examinerships in science and medicine, and the salaries attached to each examinership:—

| | | | | |
|---|---|---|---|---|
| Two | Examinerships | in Chemistry | at a salary of £220 | each. |
| ,, | ,, | Botany and Vegetable Physiology | 75 | ,, |
| ,, | ,, | Comparative Anatomy and Zoology | 100 | ,, |
| ,, | ,, | Medicine | 150 | ,, |
| ,, | ,, | Surgery | 150 | ,, |
| ,, | ,, | Anatomy | 100 | ,, |

| | | | |
|---|---|---|---|
| Two Examinerships in | Physiology - - - | £100 | each. |
| ,, ,, | Obstetric Medicine - | 75 | ,, |
| ,, ,, | Materia Medica and Pharmaceutical Chemistry - | 75 | ,, |
| ,, ,, | Forensic Medicine - - | 50 | ,, |
| ,, ,, | Hygiene, &c. - - - | 30 | ,, |
| ,, ,, | Sanitary Law and Engineering, Meteorology and Geology - - | 30 | ,, |

The examinations at the University of London stand so high that they do not need the approbation, nor suffer from the adverse criticism of visitors. So far as they seem to exhibit defects, the defects are on the side of too much severity, as has been pointed out in the remarks on the preliminary scientific examination on a preceding page.

Seeing that there are so many different Boards of Examiners, and so great a variety in the number and in the mode of selection of examiners, it cannot be a matter of surprise, although it is certainly a matter for regret, that the examinations for like qualifications should vary in severity not only at the different Boards, but at the same Board at different times. The comparative severity of the examinations may, to some extent, be inferred from the percentage of rejections. The words "to some extent" are used because the state of education of the students presenting themselves, and their greater or less degree of preparation, must exercise some influence. One Examining Board may have to examine candidates much better or much worse educated than those which appear before another. Again, it is quite possible that an inefficient examiner may pluck candidates who ought to pass, as well as pass candidates whom he ought to pluck. Efficiency in an examiner is displayed as much by judgment as knowledge, and if, from the manner of his selection, the examiner is liable to be devoid of both, the results in regard to the rejections and the proportion of rejections may be equally surprising and fantastic.

Nevertheless, the author is prepared to admit that, after making allowance for disturbing causes, the percentage of rejections does yield a clear indication of the character of examinations. This is proved by the fact, which comes out strongly in the returns furnished by the Examining Corporations to the General Medical Council, that

the percentage of rejections has risen considerably in recent years. The analysis made by Dr. Aquilla Smith, and presented to the Council, showed that in 1861 the rejections were only 12·4 per cent., and in 1875 23·2 per cent.—that is to say, that in 14 years the proportion had nearly doubled. In 1877, 2,946 candidates presented themselves for the final examinations, of whom 1,902 passed, and 534 were rejected—an average of about 20 per cent. As candidates are rather better educated than they were, the increase must be due primarily to the greater stringency of examinations. It is by no means certain that 20 or 25 per cent. of rejections is too high. If it be so, what must we say to the rejections at the preliminary scientific examinations of the University of London? Of one thing we may be quite convinced, and that is, that the percentage of rejections in 1861 was too low—convinced of this, because of the revelations made in 1864 by Dr. Parkes, whose death was an irreparable loss to the General Medical Council, which he so greatly adorned. What a comment on the state of education and examination was furnished by the fact that candidates with double qualifications presented themselves at the Army Board, who were hopeless specimens of dulness and danger! Candidates there were who did not know that "scabies" was the Latin for itch—who recommended immediate amputation for a wounded artery—who adduced the grasshopper as an instance of a ruminant animal—who divided aliments into "nitrogenous" and "non-nitrogenous," for the purpose of sub-dividing them into albuminous, fibrous, caseous, and gaseous, giving "as an example of the nitrogenous all vegetables, and of the non-nitrogenous all meats, including carnivora" (carnivora being wrongly spelt)—candidates who, after four years' study, "had not seen a case of strangulated hernia, or a case of retention of urine." Candidates of this stamp could have been neither properly educated nor efficiently examined. Happily a marked improvement has taken place in recent years, but whether on account of the advance of the standard of education and examination adopted by the Licensing Corporations, or because candidates of higher attainments came forward for the appointments in the public services, it is not possible precisely to determine. Probably the former, because the grievances of the Army Medical Department must have deterred many well-educated members of the profession from competing for commissions.

A comparison of the percentages of rejections at the different Boards displays marked differences, which cannot be accounted for except on the supposition either of too much laxity at one Board, or of too much severity at others. Thus, in 1875, the Apothecaries' Society in London rejected at the first examination 37 out of 258—about 14 per cent., and at the final 9 out of 235—not quite 4 per cent. In the same year the College of Physicians of London rejected at the final examination 21 out of 107—or about 19½ per cent.; and the King and Queen's College of Physicians, Ireland, rejected at the final 16 out of 83—or about 19 per cent. The College of Surgeons of England rejected, in 1875, at the first examination, 256 out of 767—or one-third of the candidates. The sister College in Ireland rejected, at the first examination, 62 out of 181—rather more than one-third—or 2 or 3 more than the English College. The numbers for the final were, respectively, 129 rejections out of 498, and 37 rejections out of 159—nearly 29 per cent. in the former case, and about 22 per cent. in the other. The rejections at the Apothecaries' Hall in Dublin were more numerous than at the sister institution in Blackfriars. At the first examination in 1875, 8 were rejected out of 30, and at the second examination 4 out of 27—about 27 and 15 per cent. respectively. The number of candidates, however, who present themselves at the Dublin Hall is too small to be made the basis of comparison.

The severity of the examinations has increased in a ratio exceeding the increase in the attainments of the candidates. That the attainments of candidates have increased is borne out by the testimony of examiners, but the question arises—why have they not increased in an equal degree with the standard of examinations? It is admitted by the visitors of the examinations that in no case has any undue pressure been detected on the part of the examiners. The fault, then, must rest either with the student, or with the teacher, or with the system to which both are bound to conform. Undoubtedly the student must bear a large share in the burden of failure. He comes up, or is sent up, to the medical school often imperfectly educated. Though unable to spell correctly, and incapable of explaining the definition of words in the English language derived from the Latin or Greek languages, he scrapes through a preliminary examination, perhaps after one or two failures. Rejected, possibly, by the College of Preceptors, on behalf of the Royal College of Surgeons of England, he goes to the Hall and is

successful. So many terms derived from the dead languages are used in anatomy and physiology that he finds these studies peculiarly difficult to master. He is imperfectly prepared, and when the time for his primary examination arrives he goes up, against the advice of his teachers, and is referred to his studies. The testimony of examiners is precise, that many fail on account of the deficiencies of their preliminary education. Some fail from lack of capacity, and some, especially at the first examination in anatomy, from having bad memories. Others fail from sheer idleness. They waste their first year, perhaps their second or part of their second also, and then cram. Whatever may be the defects of medical education, the author declines to believe, except on very much better evidence than any which has been brought forward, that teachers are to a very marked extent responsible for the rejections of students at the minimum examinations. The area of examination is well known; the text-books which contain the necessary information are accessible to all; teachers are displaying unusual activity ; and the amount of study required is not overwhelming. Any student of average ability and common perseverance, with a little help from the demonstrators for his dissections and microscopic work, can, if he is not engaged in dispensing and attending midwifery cases, or in working in out-patient departments, readily prepare himself for examination. If he is unusually stupid the teacher may wear himself out without instilling the requisite knowledge or educating the reasoning powers of his pupil. At the same time there is much that may be done by a sound system of tuition towards smoothing the path of the student, and economising his time. The early difficulties of anatomy may be removed; confidence and readiness in answering questions may be imparted. With due appreciation of the differences between good teachers and bad, it may be doubted whether the worst teacher who ever entered a lecture theatre, or sat in a dissecting-room, could prevent, by any amount of bad teaching, any student of average ability, determined to succeed, from passing the minimum professional examinations. As at present conducted the examinations, and especially the primary examinations, make large demands on the memories of students.

It is quite true—with regard at least to the majority of medical students—that nature has implanted in them a thirst for knowledge, but this thirst is of a general character, and is readily quenched by

moderate draughts. Real work for examinations often begins where curiosity ends. Examiners are not satisfied with the general views which satisfy the average ordinary curiosity of the medical student, but they require the knowledge and the remembrance of very hard facts and names and minutiæ; and such facts, names, and minutiæ only adhere to the memory by dint of constant repetition. The teacher can explain that which is difficult of comprehension, and he can to a certain extent drum these facts into hard heads and unwilling minds, but he ought not to do or to be expected to do that which the student must do and ought to do for himself. Learning the subjects in which the student is tested before he can enter the profession requires steady and dogged work, and such work means application to study day by day and night by night throughout the curricular period. Whether the examinations do not tend rather to tax the memory than gauge the understanding of the student, to make the student direct his chief attention to the acquisition of facts, and facts not afterwards to be retained or applied, rather than to the principles which underlie the facts and bind them together, is altogether another question. So far as they may do so the examinations must result in a larger percentage of rejections than would follow examinations more reasonably conducted, and so far as they may do so they throw upon the student more than on the teacher the necessity for exertion. The greater the number of facts required the longer the time which the student will need for their acquisition, the greater the calls upon his patience, perseverance, self-discipline, self-help, and self-restraint. Curiosity or the love of knowledge scarcely extends to painful repetitions, and is apt at the best of times to be overpowered by the love of recreation and enjoyment. With these qualifying remarks the author can quote with approval the words of Professor Humphry in his Hunterian oration:—"If the love of knowledge be choked rather than nurtured, if the student cease to take pleasure in mental effort, and has less and less desire for information as time goes on, then has education failed in one of its chief purposes. The student may be brought to the fountain, he may be made to drink, but if the draught has lost its sparkle and refreshing quality he will start back from it as soon as he can. Is there not reason to think that this is too much the case at the present time not only in medical but in general teaching? Does not the student as a rule fly from rather than cling to his work? Is not this a somewhat

marked feature in our own country? If it be so, what is the cause and where is the fault? They are not in the nature of the pupil, for that, as I have said, has an affinity, a desire for knowledge, and they cannot be in the subject taught, for no subject is devoid of pleasure-giving quality. Must we not, then, look to the method of teaching? Wherein, in the main, do we most perceive the difference between the good teacher and the bad? Is it not that the pupils of the one are inclined to and take an interest in and are happy in their work, and therefore make progress in it, whereas those of the other do not? Both teachers may fail to recognise the cause of this difference in their pupils, but the pupils have no difficulty in tracing it to their teachers. They find that the one imparts brightness and warmth, that the other brings dulness and coldness. From the one they obtain knowledge and derive stimulus to the pleasure of mental effort; from the other they fail to acquire these. The one, Hunter-like, associates facts with thoughts, connects the body with the spirit, and so makes it animate and buoyant; the other gives facts without thoughts, presents the body without the spirit—lifeless, heavy, depressing, an *indigesta moles*. The one brings the facts into relation with each other and binds them together by laws and principles, and so fastens them in the memory; the other leaves them isolated, scattered, evanescent. The one makes his pupils reasoning agents, and gives them a taste of the pride and pleasure of being such; the other leaves them mere machines, without fire and without impetus."

Having quoted with eulogy Hunter's observation, "too much attention cannot be paid to facts, yet too many facts crowd the mind without advantage any further than they lead to establish principles," Professor Humphry went on to show that the increased difficulty of carrying out a really beneficial system of education, as opposed to what may be termed cram, was attributable to two factors—first, the rapid accumulation of facts in every branch of science, and, secondly, to the examinations. "Each of the many hills upon which the science of medicine is based has been heightening, widening, separating from the others, and growing into a mountain. It is impossible for anyone to climb them all. Some must be abandoned. The alternative is short cuts, forced marches, superficial and therefore evanescent impressions, weariness of the mind, and dislike of the pursuit. The level of qualification to practise has to be reached in some way or other, and quickly;

therefore the difficulties of the way must be smoothed or skimmed over instead of being carefully explored and mastered. There is danger of too much teaching and too little education, of too much pushing and dragging (*alias* coaching), and too little self-help, of too much of being got up the paths of knowledge and too little of getting up. Those ready primers but intellectual dampers and mental stuffing-machines—the *vade-mecums* and handbooks—are brought into eager requisition. The time of pupilage is converted into a period of struggle and cram and painful visions of insatiable examiners, instead of being a period of quiet study and of enjoyable and proportionately profitable preparation for the practice of the profession. For the examinations constitute the second difficulty that I have referred to. They are annually growing in extent, in importance, and in influence. Indeed they are becoming, or have become, the despots of medical education. Teachers and students are compelled to conform to their behests. The lecturer is bound by the examination cycle and the examination method, and the publisher finds the readiest sale for the books which quickest prepare for the examination standard. And so to order examinations that the maximum of good and the minimum of evil may result from them is the great educational problem of our time. They are necessary as tests of knowledge and therefore cannot be dispensed with. They furnish a stimulus to work which is obviously needed in many if not in most instances, and they have the great merit of compelling the student to clear his ship for action and to make his knowledge clear, defined, precise, and producible; and they induce him to cultivate the very important faculty of concentrating his mental batteries and bringing them to bear quickly and effectively upon a required point. The great evil of examinations, and the more strenuously to be contended with because it is almost inevitable, is their tendency to make facts preponderate greatly over thought, and so to add to the accumulating weight of that heap which oppresses the student and smothers his aspirations and interest in his work. It is a tendency which all who are experienced in examinations and their influence cannot fail to have recognised and to regret, and they must feel the difficulty of avoiding it, especially in those examinations which, from the numbers they affect, have the greatest influence—viz., the examinations for a pass. It is a far easier and quicker process to test the student's knowledge of a fact than his capacity and habit of thinking upon

and turning the fact to account; yet it need not be said the latter is of infinitely greater importance. Indeed a fact is of little value and little likely to be retained by the brain unless it is graven in and rendered capable of utilisation by thought. Anatomy furnishes a good illustration of the manner in which the present system works. It is pursued with increasing attention and exactness of detail. The knowledge of the facts of anatomy, we all admit, are essentials to the practice of surgery and to an appreciation of physiology, and the correct learning of them promotes the habit of attention and of accuracy which is the associate of attention. Still it may be questioned whether, from an educational or even from a practical point of view, the result is proportionate to the time and the labour expended in the way in which it is done. Certainly there is no other subject which men exhibit so much proneness to forget, none of which the over-distended memory so quickly disgorges, as soon as the examination ordeal is over, and too frequently before the ordeal begins; and in the summary process the useful is indiscriminately rejected with the superfluous. The knowledge painfully acquired is strainingly held and cheerfully let go. Hence the facts of anatomy, being measured by an examination standard and acquired for an examination purpose, are repulsive to most students, are made a drudgery instead of a pleasure, and become a means of deterring men from scientific pursuit instead of alluring them into it. Student and teacher feel that the facts alone are wanted, and the facts alone must be supplied in all their coldness and massive repulsiveness. The pattern must be that of Hunter's Chinese philosopher, 'whose knowledge consisted only in facts,' and partakes little of the similitude of his European, who reasons from principles and thus accounts for facts."

Admirable in their general scope and breadth of view, Professor Humphry's remarks bear, the author thinks, a little too hardly upon the examiner and the teacher, and a little too gently on the student. The latter feature is readily accounted for by the circumstance that Professor Humphry is so far fortunate in having to teach at Cambridge the best class of medical students. He is not afflicted with the uneducated type. Beyond a little help in his dissection, and occasional examinations to make him ready at producing his knowledge and to determine his progress, the intelligent student has little need of lectures and teachers if he possesses the materials and books. Reference is made now to the primary or anatomical and physiolo-

gical examination. As Dr. Moxon observes—"The self-training spirit is natural to some men, to all great men. On the other hand, the self-training spirit is almost absent in some men. These are the fools, and trouble everyone as to what is to be done with them. But the vast majority of men have some self-training faculty, and the proper aim of education is to support this which I may call the vital spark of character, by help from the training faculty of others" (Annual Oration of the Hunterian Society for 1877). Professor Humphry's remarks do not embrace the influence of the educational regulations by which students and teachers are fettered, and which are as potent in their influence as the examinations. On the peculiar character of these regulations, and on the special disadvantages which have resulted from their minutely prescriptive character and from the diversity of the requirements of the nineteen Corporations, the author has touched at large in the preceding section of this Essay. He may now conclude his survey of education and examination with a passage which he penned ten years ago, and which has appropriate application at the present time:—"The happy plan of mingling incongruous subjects—of allowing theoretically no time for private study—of compelling the body of the student without regard to the effect of compulsion on the mind—of exalting far above other educational instruments lectures which the very conditions under which they are delivered render liable to every possible defect—of allowing professors to wander at will over collateral subjects irrespectively of the end for which their partial cultivation was deemed desirable—of making regulations which, as those who have made them know, are not, cannot be, will not be, and ought not to be kept, is the outgrowth of that utter indifference to the medical profession as a body which from time immemorial has distinguished the action of the Legislature and Ministers of the Crown. Partial evils have been met by partial remedies. Now a College has been created, and now an Apothecaries' Hall, neither born great, nor having achieved greatness, has had greatness thrust upon it. Then a University has sprung up, and been endowed with the power of granting medical degrees and licences. Each of these and other similar institutions is allowed to make any conditions it pleases for its diplomas; and as each issues its regulations in accordance with the particular ideas, more or less liberal, and the motives more or less lofty, of its Executive Committee, we arrive at last at arrangements which are exceedingly

inconvenient to aspirants to the medical profession as well as inimical to the production of first-class teaching powers. Finally, as a sop to a discontented Cerberus whose utterances are becoming too clamorous, up rises a Council obtained by a distillation of the most conservative elements of the Corporations, armed with a merely permissive authority, of constitution necessarily loquacious and expensive, and as little representative as possible of the profession, whose destinies its deliberations and decisions must materially influence and control. The glorious liberty of Britons—the abhorrence of centralisation—the passion for little local centres of self-government and small pettifogging institutions—the aversion to comprehensive legislation on behalf of the medical profession for fear of disturbing the flock of quacks which exist in our midst, fostered by the credulity and ignorance of the community which they fleece—the absence of the faculty of organisation, have brought us in the nineteenth century to this pass. We have now to recur to first principles, and to mould out of existing institutions, stubborn and inflexible as they have grown by dint of the possession of exclusive privileges, lucrative perquisites, and close constitutions, that simple machinery which could have been produced with the greatest ease with a fair field and no favour before us. We have to retrace our steps and to win back our way, until the light shall

> " 'Break on this night of longing,
> Where hand in hand we grope
> Through wastes of vain endeavour,
> 'Neath stars of fruitless hope.' "

*Medical Press and Circular*, 1869.

TABLE *showing Results of Professional Examinations for Degrees, Diplomas, and Licences, granted in* 1874 *by the Bodies in Schedule* (A.) *of the Medical Act.*

| Licensing Bodies | Degrees and Diplomas | No. of Examinations to be passed | First Examination | | Second Examination | | Final Examination | |
|---|---|---|---|---|---|---|---|---|
| | | | Rejected | Passed | Rejected | Passed | Rejected | Passed |
| 1. Royal Coll. of Physicians, London, - - | Licence | 2 | – | 1 | – | – | 14 | 85 |
| | Membership | 3 | – | – | – | 1 | 3 | 21 |
| 2. Royal Coll. of Surgeons, England, - - | Membership | 2 | 229 | 462 | – | – | 129 | 349 |
| | Licence in Midwifery | 1 | – | – | – | – | – | – |
| | Fellowship | 2 | 65 | 43 | – | – | 19 | 10 |
| 3. Society of Apothecaries, London, - - - | Licence | 2 | 36 | 151 | – | – | 15 | 190 |
| 4. University of Oxford, | M.B. | 2 | – | – | – | – | – | – |
| | M.D. | Essay | – | – | – | – | – | – |
| 5. University of Cambridge, | M.B. | 3 | 4 | 30 | 7 | 15 | – | 13 |
| | M.D. | 1 | – | – | – | – | – | 3 |
| | M.C. | 1 | – | – | – | – | – | – |
| 6. University of Durham, | L.M. | 2 | – | 2 | – | – | – | 2 |
| | M.B. | 2 | – | – | – | – | – | 2 |
| | M.D. | Essay | – | – | – | – | – | 1 |
| | M.C. | 2 | – | 2 | – | – | – | – |
| | | | Preliminary Scientific | | 1st M.B. | | 2nd M.B. | |
| 7. University of London, | M.B. | 3 | 63 | 93 | 17 | 37 | 6 | 19 |
| | M.D. | 1 | – | – | – | – | 5 | 14 |
| | B.S. | 1 | – | – | – | – | – | 5 |
| | M.S. | 1 | – | – | – | – | – | – |
| 8. Royal College of Physicians, Edinburgh, - - | Licence | 2 | 2 | 16 | – | – | 42 | 129 |
| 9. Royal College of Surgeons, Edinburgh, - - | Licence | 2 | 11 | 15 | – | – | 13 | 37 |
| 10. Faculty of Physicians and Surgeons, Glasgow, - | Licence | 2 | 33 | 35 | – | – | 10 | 15 |

TABLE—*continued.*

| LICENSING BODIES | Degrees and Diplomas | No. of Examinations to be passed | First Examination | | Second Examination | | Final Examination | |
|---|---|---|---|---|---|---|---|---|
| | | | Rejected | Passed | Rejected | Passed | Rejected | Passed |
| 11. Royal Colls. of Physicians and Surgeons, Edinburgh, | Double Licence | 2 | 38 | 50 | – | – | 44 | 84 |
| 12. Royal Coll. of Physicians, Edinburgh, and Faculty of Physicians & Surgeons, Glasgow, - - | Double Licence | 2 | 2 | 4 | – | – | 16 | 23 |
| 13. University of Aberdeen, | M.B. | – | – | – | – | – | – | – |
| | M.D. | – | – | – | – | – | – | 26 |
| | M.B. & M.C. | 3 | 15 | 60 | 20 | 65 | 9 | 54 |
| 14. University of Edinburgh, | M.B. | 3 | 77 | 137 | 36 | 90 | 14 | 88 |
| | M.B. & M.C. | | | | | | | |
| | M.D. | Thesis | – | – | – | – | 3 | 20 |
| 15. University of Glasgow, | M.B. & M.C. | 3 | 53 | 60 | 25 | 41 | 10 | 47 |
| | M.B. | 2 | – | 1 | – | – | 3 | 1 |
| | M.D. | Thesis | – | – | – | – | – | 17 |
| 16. University of St. Andrew's, | M.B. | 3 | 1 | – | – | – | – | – |
| | M.D. | 1 | – | – | – | – | – | 10 |
| | M.C. | – | – | – | – | – | – | – |
| 17. King and Queen's College of Physicians, Ireland, | Licence | 2 | – | 1 | – | – | 15 | 90 |
| | Licence in Midwifery | 1 | – | – | – | – | 16 | 52 |
| 18. Royal College of Surgeons, Ireland, - - | Licence | 2 | 66 | 112 | – | – | 23 | 91 |
| | Licence in Midwifery | 1 | – | – | – | – | 16 | 36 |
| | Fellowship | 3 | 1 | 52 | – | – | 1 | 52 |
| 19. Apothecaries' Hall, Dublin, | Licence | 2 | 9 | 23 | – | – | 3 | 27 |
| 20. University of Dublin, | M.B. | 2 | – | – | – | – | 4 | 49 |
| | M.C. | 3 | 4 | – | – | – | – | – |
| | M.D. | Thesis | – | – | – | – | 2 | 18 |
| 21. Queen's University, | M.D. | 3 | 45 | 62 | 37 | 85 | 20 | 44 |
| | M.C. | 1 | – | – | – | – | 27 | 30 |

## *Medical and Surgical Qualifications*, 1878.

### Surgical—*Passed Final.*

| | | |
|---|---|---|
| College of Surgeons of England, | | 353 |
| „ „ Edinburgh, | | 43 |
| Colleges of Physicians and Surgeons, Edinburgh, | | 150 |
| Faculty of Glasgow, | | 34 |
| „ „ and Physicians of Edinburgh, | | 21 |
| College of Surgeons, Ireland, | | 101 |
| English Universities, | | 7 |
| Scotch „ | | 210 |
| Irish „ | | 63 |
| Total, | | 982 |

### *Qualifications.*

| | | |
|---|---|---|
| Total of Surgical qualifications from Colleges, 1878, | | 702 |
| Scotland—St. Andrew's, | 2 | 196 |
| Aberdeen, | 33 | |
| Edinburgh, | 106 | |
| Glasgow, | 55 | |
| Ireland—Trinity College, | 28 | 63 |
| Queen's University, | 35 | |
| Cambridge, M.C. | | 1 |
| London, B.S. | | 6 |
| Total Surgical qualifications, | | 968 |

### Medical—*Passed Final.*

| | | |
|---|---|---|
| College of Physicians, England, | | 68 |
| Apothecaries' Society, „ | | 204 |
| College of Physicians, Edinburgh, | | 115 |
| Conjoint Examinations, Edinburgh, | | 150 |
| „ „ Glasgow, | | 21 |
| University of Edin., M.B., &c. | 117 | 210 |
| „ St. Andrew's, M.B. | 2 | |
| „ Aberdeen, | 33 | |
| „ Glasgow, | 58 | |
| College of Physicians, Ireland, | | 78 |
| Apothecaries' Hall, | | 23 |
| University of Dublin, M.B. | 41 | 88 |
| Queen's University, M.D. | 47 | |
| Cambridge, M.B. | | 7 |
| Oxford, M.B. | | 5 |
| London, M.B. | | 25 |
| Durham, M.B. | | 7 |
| Total fresh Medical qualifications, 1878, | | 1,001 |

### *Additional Qualifications.*

| | | |
|---|---|---|
| University of Cambridge, M.D. | | 4 |
| „ Durham, „ | | 3 |
| „ London, „ | | 6 |
| „ Edinburgh, „ | | 30 |
| „ Glasgow, „ | | 14 |
| „ Andrew's, „ | | 10 |
| „ Aberdeen, „ | | 46 |
| Total, | | 113 |

TABLE *showing results of Professional Examinations for Degrees, Diplomas, and Licences, granted in* 1875, 1876, *and* 1878, *by the Bodies in Schedule* (A.) *of the Medical Act.*

| LICENSING BODIES | Degrees and Diplomas | No. of Examinations | 1875 | | | | | | 1876 | | | | | | 1878 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | First Examination | | Second Examination | | Final Examination | | First Examination | | Second Examination | | Final Examination | | First Examination | | Second Examination | | Final Examination | |
| | | | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected |
| 1. Royal Coll. of Physicians, London, | Licence | 2 | 7 | 1 | – | – | 86 | 21 | 15 | 8 | – | – | 90 | 16 | 9 | 14 | – | – | 68 | 21 |
| | Membership | 3 | 5 | – | – | – | 15 | 1 | – | – | – | – | 25 | 3 | – | – | 1 | – | – | – |
| 2. Royal Coll. of Surgeons, England, | Membership | 2 | 511 | 256 | – | – | 369 | 129 | 469 | 224 | – | – | 408 | 138 | 451 | 276 | – | – | 353 | 144 |
| | Licence in Midwifery | 1 | – | – | – | – | 10 | 2 | – | – | – | – | – | – | – | – | – | – | – | – |
| | Fellowship | 2 | 39 | 51 | – | – | 21 | 17 | 38 | 42 | – | – | 27 | 17 | 43 | 55 | – | – | 26 | 12 |
| 3. Society of Apothecaries, London, | Licence | 2 | 221 | 37 | – | – | 226 | 9 | 191 | 68 | – | – | 253 | 31 | 147 | 78 | – | – | 204 | 58 |
| 4. University of Oxford, | M.B. | 2 | 6 | 4 | – | – | 6 | – | 9 | 2 | – | – | 7 | – | 7 | 2 | – | – | 5 | 2 |
| | M.D. | Essay | – | – | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 5. University of Cambridge, | M.B. | 3 | 27 | 11 | 16 | 8 | 6 | 6 | 36 | 13 | 14 | 9 | 16 | 6 | 48 | 35 | 23 | 4 | 7 | 6 |
| | M.D. | 1 after M.B. | | | | | 2 | – | – | – | – | – | – | 7 | – | – | – | – | 4 | 4 |
| | M.C. | 1 after M.B. | | | | | – | – | – | – | – | – | – | 1 | – | – | – | – | 1 | – |
| 6. University of Durham, | L.M. | 2 | 1 | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | M.B. | 2 | – | – | – | – | 2 | – | – | – | – | – | – | – | 5 | 3 | 7 | 1 | 7 | 1 |
| | M.D. | Essay | – | – | – | – | 1 | – | – | – | – | – | – | 1 | [M.D. for practitioners] 3 | | | | 1 | |
| | M.C. | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

TABLE—*continued.*

| LICENSING BODIES | Degrees and Diplomas | No. of Examinations | 1875 | | | | | | 1876 | | | | | | 1878 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | First Examination | | Second Examination | | Final Examination | | First Examination | | Second Examination | | Final Examination | | First Examination | | Second Examination | | Final Examination | |
| | | | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected | Passed | Rejected |
| | | | Preliminary Scientific | | 1st M.B. | | | | Preliminary Scientific | | | | | | Preliminary Scientific | | | | | |
| 7. University of London, | M.B. | 3 | 107 | 78 | 56 | 21 | 19 | 9 | 97 | 81 | 51 | 25 | 23 | 11 | 92 | 71 | 66 | 38 | 25 | 20 |
| | M.D. | 1 | after M.B. | | | | 6 | 4 | – | – | – | – | 11 | 6 | – | – | – | – | 6 | 4 |
| | B.S. | 1 | after M.B. | | | | 7 | – | – | – | – | – | 7 | 2 | – | – | – | – | 6 | 1 |
| | M.S. | 1 | after B.S. | | | | – | – | – | – | – | – | 1 | – | – | – | – | – | – | – |
| 8. Royal College of Physicians, Edinburgh, - - | Licence | 2 | 7 | 1 | – | – | 98 | 60 | 10 | 3 | – | – | 114 | 66 | – | 14 | – | – | 115 | 38 |
| 9. Royal College of Surgeons, Edinburgh, - - | Licence | 2 | 23 | 12 | – | – | 45 | 18 | 16 | 7 | – | – | 47 | 7 | 19 | 10 | – | – | 43 | 5 |
| 10. Faculty of Physicians and Surgeons, Glasgow, - | Licence | 2 | 35 | 34 | – | – | 21 | 14 | 30 | 37 | – | – | 41 | 20 | 31 | 14 | – | – | 34 | 11 |
| 11. Royal Colls. of Physicians and Surgeons, Edinburgh | Double Licence | 2 | 50 | 45 | – | – | 71 | 40 | 78 | 38 | – | – | 85 | 53 | 94 | 51 | – | – | 150 | 56 |
| 12. Royal Coll. of Physicians, Edinburgh, and Faculty of Glasgow, - | Double Licence | 2 | 3 | 3 | – | – | 20 | 10 | 4 | 2 | – | – | 22 | 13 | 9 | 5 | – | – | 21 | 5 |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13. University of Aberdeen, | M.B. | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | M.D. by promotion | – | – | – | – | – | 31 | – | – | – | – | – | – | – | – | – | – | – | – | – | 46 | – |
| | M.B. & M.C. | 3 | 65 | 33 | 69 | 26 | 60 | 13 | 71 | 30 | 64 | 24 | 65 | 10 | 89 | 36 | 49 | 45 | 33 | 15 |
| 14. University of Edinburgh, | M.B. | 3 | 123 | 64 | 93 | 46 | 84 | 10 | 149 | 87 | 103 | 55 | 88 | 10 | 184 | 78 | 107 | 58 | 117 | 27 |
| | M.B. & M.C. | | | | | | | | | | | | | | | | | | | |
| | M.D. | Thesis | – | – | – | – | 17 | 3 | – | – | – | – | 19 | 4 | – | – | – | – | 30 | 5 |
| 15. University of Glasgow, | M.B. & M.C. | 3 or 4 | 64 | 53 | 66 | 20 | 42 | 9 | 72 | 46 | 50 | 35 | 57 | 11 | old 57 | 67 | 59 | 36 | 58 | 12 |
| | | | | | | | | | | | | | | | new 16 | 12 | 8 | – | – | – |
| | M.D. | 2 | – | – | – | – | 3 | – | 2 | – | – | – | 3 | 2 | 2 | – | 1 | 2 | – | – |
| | M.D. | Thesis | 1 | – | – | – | 11 | 7 | – | – | – | – | 22 | 3 | – | – | – | – | 14 | – |
| 16. University of St. Andrew's | M.B. | 3 | – | 1 | – | – | – | – | – | – | – | – | 1 | – | – | | M.B. & M.C. 2 | | – | |
| | M.D. | 1 | – | – | – | – | 9 | 2 | – | – | – | – | 10 | 2 | – | – | – | – | 10 | – |
| | M.C. | – | – | 1 | – | – | – | – | – | – | – | – | 1 | – | – | – | – | – | – | – |
| 17. King and Queen's College of Physicians, Ireland, | Licence | 2 | 1 | – | – | – | 67 | 16 | 2 | 3 | – | – | 108 | 22 | 5 | 3 | – | – | 78 | 29 |
| | Licence in Midwifery | 1 | 1 | – | – | – | 77 | 1 | – | – | – | – | 99 | 3 | – | – | – | – | 79 | 1 |
| 18. Royal College of Surgeons of Ireland, | Licence | 3 | 119 | 62 | 59 | 37 | 122 | 37 | 95 | 71 | 97 | 25 | 97 | 12 | 94 | 60 | 89 | 41 | 101 | 4 |
| | Licence in Midwifery | 1 | – | – | – | – | 15 | 2 | – | – | – | – | 20 | 1 | – | – | – | – | 8 | – |
| | Fellowship | 3 | 3 | – | 3 | – | 3 | – | 12 | – | 12 | – | 12 | 1 | 3 | – | 3 | – | 3 | – |
| 19. Apothecaries' Hall, Dublin, | Licence | 2 | 22 | 8 | – | – | 23 | 4 | 22 | 11 | – | – | 22 | 7 | 19 | 18 | – | – | 23 | 6 |
| 20. University of Dublin, | M.B. | 2 | See note (*) | | | | 39 | 7 | See note (†) | | | | 49 | – | – | – | – | – | 41 | 7 |
| | M.C. | 3 | | | | | 26 | 6 | | | | | – | – | – | – | – | – | 28 | 3 |
| | M.D. | Thesis | | | | | – | – | | | | | – | – | – | – | – | – | – | – |
| 21. Queen's University, | M.D. | 3 | 77 | 60 | 71 | 55 | 46 | 27 | 112 | 74 | 65 | 50 | 53 | 33 | 139 | 48 | 100 | 61 | 47 | 30 |
| | M.C. | 1 | – | – | – | – | 38 | 27 | – | – | – | – | 47 | 29 | – | – | – | – | 35 | 30 |

* Half M.B. Examinations:—Anatomy (Descriptive)—passed 46, rejected 9; Chemistry—passed 43, rejected 13; Botany—passed 34, rejected 19; Materia Medica—passed 29, rejected 14; Physics—passed 38, rejected 6.

† Half M.B. Examinations:—Anatomy—passed 31, rejected 10; Chemistry—passed 54, rejected 11; Botany—passed 45, rejected 11; Materia Medica—passed 37, rejected 11; Physics—passed 32, rejected 10.

SUGGESTIONS FOR IMPROVEMENT.

There is a general feeling in the ranks of the profession that the social estimation of the members of the medical profession is inferior to that of military and naval officers, barristers, and clergymen. Admitting the truth of this opinion, we naturally inquire what are the causes of this inferiority, and what can be done to make the profession a more respectable body than it is at present? There are several causes at work which must be candidly stated. Military and naval officers are often connected with the aristocracy. When did any scion of a noble house become a medical student? Barristers and clergymen have received the advantages of a University education, and felt the ameliorating influences of University society and culture. Oxford practically closes its doors to the medical profession by acquiescing in the confiscation of the ancient medical endowments. Cambridge has entered upon a new career, and the after-generation will reap the reward. The medical profession is often recruited from the sons of aspiring tradesmen and small farmers, whose standard of general culture is far below that of barristers and clergymen, and with difficulty reaches the level of an unsatisfactory preliminary examination. The medical profession retains the taint of trade, and has scarcely shaken off the association with the art and mystery of barbery. There is no clear line of demarcation between chemists and medical practitioners, and tooth-brushes and hair-oil may still be purchased in the shops of members of the profession. If the strength of a chain be determined by that of its weakest link, possibly the estimation of the profession may be determined by the status of its lower ranks. The army, the navy, the bar, and the church, are all associated intimately with the State, and the highest offices are open to their members. The medical profession has not yet emerged successfully from its struggle for equal treatment in the army and the navy with the combatant officers, and the miserable salaries and comparatively degraded state of the Poor Law medical officers tend to keep down the social position of the profession at large. The members of the medical profession are day and night at the beck and call of everyone—even the humblest and the poorest persons—exposed to complaints, inquiries, investigations, summary dismissal by Boards of Guardians and committees of hospitals; made to perform, or allowing themselves to perform, an immense amount of

gratuitous and thankless labour, and obliged often to be obsequious to the petty powers that be. Dispensing medicines, sending out medicines, charging for medicines, the performance of personal offices—all tend to the depression of the doctor. Add to all this the intense jealousies, the constant efforts to acquire practice at a neighbour's expense, the miserable system of backbiting and depreciation of professional brethren, the internecine conflicts, the absence of an organisation (other than a voluntary association like the British Medical Association, which, as yet, numbers only a third of the profession) capable of securing the just claims of the profession in the public services, the very small number of offices and honours open to medical men—and even without our competing Corporations and our Colleges and Medical Council distrusting and afraid to admit to a share in the government of the profession the general practitioners—we surely possess abundant explanation of our relative inferiority. Recognition of causes is half the battle in the search after the means of rising to the proper level in society. The elevation of the standard of culture in general education and natural science, participation in University training, improvement in professional teaching and examination, lie at the root of advancement. Emancipation of the profession from all participation in the trade in drugs, the cessation of gratuitous services, increase of remuneration and consideration as the holders of public appointments, the establishment of permanent equality with the military element in the army and navy, the elevation of the civil medical services, the opening out of high office in the State, as of a Minister of Health, more adequate representation in the House of Commons, admission to the House of Lords by the bestowal of life peerages on the most eminent cultivators of science and medicine—when these ends are attained, will there be the same complaint of the depreciation and degradation of our order? It is the elevation of the profession as a body at which the medical reformer steadily aims, and it is as a means to this end that he is found advocating union and organisation, and representation in existing Councils. But for this ultimate end, medical politics would indeed be a miserable pursuit—with it they receive every justification. This is the end towards the attainment of which the suggestions in this Essay are mainly directed.

It may reasonably be anticipated that after receiving its final improvements the "Medical Act Amendment Bill," introduced by

the Duke of Richmond into the House of Lords, will apply an efficient remedy to some of the most prominent evils which have been depicted in the foregoing parts of this Essay. The provisions for the compulsory formation of conjoint Boards of Examination—one in each division of the United Kingdom—for the purpose of bestowing the minimum qualifications to practise the medical profession, if brought into harmony with general professional opinion, will have the effect of rendering examinations for these qualifications as uniform in character and standard as probably is attainable, and will lead to an equalisation of the fees paid by candidates in the three divisions of the United Kingdom. Visitations and supervision of examinations will be facilitated, and an effectual obstacle will have been raised against the revival of the old evil of competition of Corporations downwards, and against a relapse of examinations into inefficiency during the intervals between the inspections of Visitors. Admission to the Medical Register will be obtainable only by persons who have been examined and approved in all the branches of medical practice. The evil of partial qualifications will be eradicated. The 40th clause of the Medical Act will be amended, if not in a manner which will meet the views of extremists, at least to the full extent ever likely to be sanctioned by Parliament, and so as to satisfy all moderate reformers. The establishment of uniformity of examination, so far as the ordinary qualifications are concerned, will necessitate a revision of the present regulations for the education of students and the promulgation by the General Medical Council of a uniform code. Such a code ought to be framed on sound principles. The principles which commend themselves to the author's judgment may be briefly stated as follows:—1. That the preliminary examination in general knowledge should include those subjects, and those subjects only, which are essential to the gentleman and to the medical student. 2. That the subjects which are now included in the curriculum of professional study should be classified and grouped together after their kind; and, as a natural corollary from this, that the scientific subjects of the curriculum which have been included partly in the subjects—the optional subjects—for the preliminary examinations and partly in the professional curriculum, should be combined both in education and in examination. 3. That alternative subjects in an optional list should be of the same kind and of the same educational value. 4. That for each period of professional study which is concluded

with an examination, compulsory attendance on courses of instruction should be confined strictly to those subjects which are comprised in the examination held at the end of the period. 5. That time should not be counted in a succeeding division of study until the examination in the subjects of the preceding period has been passed. 6. That the mode of commencing professional study should be the same for all students—commencement at a recognised medical school. 7. That whilst it is desirable to encourage students to reside with practitioners, and secure the benefits without the disadvantages which resulted from the old system of apprenticeship, it is undesirable that this should be done in such a manner as to crowd the necessary courses of instruction at a medical school and hospital into three winter and two summer sessions, or to encourage the employment of unqualified assistants in private or poor-law practice. 8. That four years' study is not too much time to devote to strictly professional subjects subsequent to examination in preliminary education and natural science. 9. That it is not the business of any central authority to prescribe the mode in which necessary subjects of study should be taught at the medical schools, but that (10) it is sufficient for the central authority (*a*) to prescribe the subjects of preliminary, scientific, and professional education and examination, and (*b*) the number of the examinations to be undergone, (*c*) to define the extent to which the student will be tested in each subject, and (*d*) to receive evidence that the student has done everything without doing which it would be impossible for him to learn his profession properly, and that he has attended at the recognised places and schools courses of instruction in the subjects of examination. 11. That evidence of attendance on courses of instruction on special subjects of professional practice should be required by the authorities, and that these subjects, such as hygiene, therapeutics, diseases of women and of children, and diseases of the eye, ear, skin, throat, and mind, should receive due attention at the professional examinations. 12. That uniformity of education and examination should extend as well to the preliminary as to the professional subjects. 13. That medical schools should be subjected to inspection.

Following naturally from these principles are the following specific suggestions:—The *Preliminary Examination* should be intrusted in each division of the kingdom to one or more of the Universities. In England, for example, the fittest authority would be the University

of London. The examination should include all the subjects of general education which are either essential to the educated gentleman or necessary to assist the professional education of the medical student. These subjects are English, arithmetic, algebra, geometry, Latin, and Greek, and one or two modern languages. The extent to which Latin and Greek should be demanded should be limited to translation, grammar, and a knowledge of the roots and inflexions of words. Candidates should also be expected to explain the derivations of English terms taken from either of the classical tongues. The value of Greek to the student, on account of the origin of so many of the words used in anatomy, physiology, medicine and surgery from this language, can scarcely be disputed. For those engaged in law or commerce Greek is of small utility, and the time formerly occupied in acquiring it is usefully given to modern languages. But in the case of medical students it is erroneous to suppose that any modern language, or any of the branches of natural sciences, can take the place of Greek. The lamentable deficiency in spelling exhibited at the professional examinations is largely, if not wholly, due to deficiency in the knowledge of the Latin language and want of acquaintance with Greek. How could any medical student who had a fair grounding in Greek spell diaphragm diaphram, or pleura plura? An infinite number of examples might be given from answers to examination papers of the mistakes in spelling due to ignorance of Latin and Greek. These languages, then, are essential for the right understanding, remembrance, and spelling of technical medical terms. French and German play a different part, for their utility is made manifest at a later stage, when the student has become the medical practitioner. It is said that the state of secondary education in schools has not attained the level which would justify the inclusion of Greek in the preliminary examination. In 1872 a Sub-committee of the Annual Committee of the University of London, appointed to inquire into the subject of compulsory examination in Greek at the matriculation, issued a report which contained some valuable information on the position of Greek in the principal English public and private schools. Inquiries were sent to the head-masters, and the answers formed the basis of the general conclusions drawn. It appeared that in several of the large and important modern schools, as well as in some of the older ones, a "modern" side had been established in which Greek formed no part of the educational course. "Thus at Cheltenham College

there is," to quote the report, "a military and civil department in which Greek is not taught, containing 320 boys, against 230 in the classical department; so too there is at Clifton College a modern side of 80 out of 300 boys; at Haileybury, 75 or 80 out of 356; at Malvern College of 60 out of 180; at Marlborough College of 150 out of 500; and at Wellington College of 110 out of 330. It thus appears that at these six schools alone about 800 boys, though of a suitable age, and in other respects receiving an education of a high order, do not learn Greek. Again it appears that at several large schools, and one especially (Christ's Hospital) of some renown for its classical teaching, Greek is now taught only to a very limited extent. At Christ's Hospital, out of 750 boys only 180 now learn Greek, although down to so recent a date as 1869 it was taught to all. At the City of London School, out of 650, not more than 80 learn Greek; and at University College School, out of 221, 88, who are of a suitable age, and sharing otherwise in the general education, do not learn Greek." .The report further stated that the Endowed Schools Commissioners had established schemes of education for endowed schools, in which Greek found no place, in order to provide adequate test and encouragement for the study of modern languages and natural science; that in many schools where Greek had ceased to be compulsory the number of those not studying Greek had been progressive, but that in a few, through the zeal of head-masters, Greek had retained, and even improved, its position; and that a widespread change, tending to the exclusion of Greek or the substitution of other subjects, was in progress, due to a growing desire on the part of parents that their sons should be instructed in modern languages, especially German, and to a conviction that Greek was of no practical utility. Natural science had been receiving some attention as an alternative branch of study. The Senate of the University of London removed Greek from the compulsory subjects for the matriculation, and made it rank as an optional subject with French and German, in February, 1873. It would be interesting to have returns now from the same schools as those from which the Sub-committee obtained returns in 1871-72, and to compare them together to see if the decadence of Greek has made further progress. Whether this be the case or no, the author cannot but endorse the opinion of the value of Greek expressed so well by the Rev. H. S. Estcott, head-master of Somersetshire College, Bath:—"Greek is of unchangeable importance for its

literature *sacred* and *profane*, most necessary for the safe employment of scientific terms, and incapable of being changed for so good an agent in training the youthful mind. (1.) So far as its educational power is concerned, so far as it is a means of mental training, I am persuaded that the study of Greek is far more effectual than the study of modern languages or even of Latin in forming *habits of exactness* and of *concentration of thought without overstrain.* (2.) It is *the key to scientific nomenclature*, and, as such, of very great practical importance to chemists, medical and other students. (3.) It introduces us to the *fountain-head of literature* in a way that Latin certainly does not. (4.) It enables the educated English layman to read in the original the books of the New Testament. The cry against Greek is due to want of education on the part of parents, to idleness and want of self-discipline on the part of boys, and to the ignorance and inefficiency of many schoolmasters, who are unable to teach it, at least as it should be taught."

Probably another cause of the decadence of Greek has been the extravagant extent to which the subject has been usually pushed at schools. If instruction in Greek were limited to translation of the best authors, and to the structure and genius of the language and its literature, and excluded the necessity for learning yards of repetition as a class exercise, and manufacturing bad prose and worse iambics ; and if schoolmasters would more closely connect the study of Greek with its bearing on modern philosophy and science, would it not regain the position which it has lost? In an excellent article in the *Fortnightly Review*, for February, 1879, Mr. E. A. Freeman vindicates the study of Greek on grounds with which the author entirely concurs. He remarks:—"Now I will not argue whether it would or would not be a good thing to abolish the study of Greek and to substitute the study of botany or of pneumatics. The point that I will argue is this, that it is nonsense to talk about abolishing the study of Greek or Latin and putting the study of German or French in its place. You cannot put French in the place of Latin, or Latin in the place of French, because Latin and French are simply the same thing in two different stages. No man can really know Latin who is wholly ignorant of French : no man can really know French who is wholly ignorant of Latin. He who knows a language ought, according to the old saying, to know whence the words come and whither they go. But he who tries to know French without Latin does not know whence his French

words come, and he who tries to know Latin without French does not know whither his Latin words go. If I were to say that a knowledge of Greek is imperfect without a knowledge of German, and that a knowledge of German is imperfect without a knowledge of Greek, that would be true in a sense and in a degree, though not in the same sense or in the same degree as my position about Latin and French. For there is no direct special connexion between Greek and German, nothing beyond that which connects either of them with any other Aryan tongue. Yet there is a point in which the two languages have a most instructive connexion in the way of analogy. Greek and German are the two European languages which have developed, to the highest extent, the power of coining words out of their own resources, and they have kept that power to our own time. Latin seems never to have had that power to the same extent as Greek, and the power had pretty well-nigh vanished in what is called the classical Latin age. In modern English it is hard to make a new word according to the real analogies of the language ; in modern French it is impossible. But in German and Greek, if it is wanted to express a new idea, there is nothing to do but make a new word, which shall be as good German or Greek as any of the old ones. German and Greek are the two languages of politics, just as much as Latin is the language of law. I claim for the Latin and Greek tongues a place in our studies, not as something apart from more modern studies, but as something essential to those studies. We must study Greek and Latin, not as something alien to English, French, and German, but as something without which English, French, and German are not fully understood, and which itself is not fully understood without English, French, and German. We waste so much time over Latin and Greek. The time thrown away on verse-making might be saved at once. If an Englishman chooses to amuse himself by making Latin verses, or by making Chinese verses, let him, but do not let teachers spend on so trifling a purpose time which would be enough to teach what the Latin or any other language really is. On the other hand, instead of learning a heap of rules, which apart from practice are meaningless, from the day that a child begins to learn any language he should begin to make sentences in that language. As soon as he begins to learn any language, he should be taught the relation in which that language stands to English. As soon as he learns any second language he should be taught the relation

in which each of the three stands to the other two. And all this does not mean making things harder—it means making them easier. It means giving them life and interest. It is dull work learning *hic*, *hæc*, *hoc*, or even ὁ, ἡ, το, but Grimm's law comes with the interest of a game. The old rhyme says :—'*Qui quæ quod*,' 'Fetch me the rod ;' but the rod will not be needed if the learner is shown from the beginning that *qui* and *quod* are the same as *who* and *what*. A boy now learns Latin and he learns French. He learns them as two separate things which have nothing to do with one another. As long as they are kept asunder there is no life in either ; bring them together and they both get life. Show the child how the French words are formed from the Latin ; how some Latin words are lost in French whilst others live on; teach him that whilst Cicero doubtless said :—'*Habeo pulchrum equum*,' Cicero's slave most likely said :—'*Ego habeo unum bellum caballum ;*' show him that *chevauchée* comes from the very roots of the French language, while *équitation* is an invention of the last century or two ; show him how *caput* and *navis* have died out in their literal meaning, and have lived on in the secondary uses of *nef* and *chef ;* show all this and the thing has the interest of a story. An observant learner will find out a good deal of all this for himself ; many a point in Grimm's law has been found out over and over again before Grimm and after him ; but it should not be left to chance, it should all be taught from the beginning. In short, the great discoveries of our own time ought to be brought to bear on all teaching of all languages from the first lesson which is given in any of them. The deep things of comparative philology, like the deep things of other sciences, are for the masters of the sciences ; but the plain truths, which lie on the surface, are truly for babes and sucklings. Every child will not be either a Bopp or a Newton, but every child should be taught the broad relations of the Aryan languages of Europe just as much as he is taught the solar system. Clearly to understand the relations between Latin and French should be as much a matter of course as to know that the earth goes round the sun. I believe then that if we can only learn all tongues in a rational way, we may keep our Greek and our Latin, and bring in our German, our French, our Italian—above all, our English—in their due places alongside of them."

What could appear more absurd to a writer expressing views like these than the list of "optional subjects" for the examination

in preliminary education sanctioned by the collective wisdom of the General Medical Council? Every candidate was asked to take up one of four optional subjects—Greek, or French, or German, or Elementary Mechanics. All the three languages named have their respective values, but in what single respect can French or German be said to be the equivalent of Greek, and by what subtle process of reasoning was it discovered that a knowledge of the properties of solids and fluids would remove the etymological difficulties of students, or enable them to refer to the works of Continental authors? The abolition of this list appears to the author to be imperatively required, all the preliminary knowledge really essential being made compulsory. The transference of the preliminary examination to the management of the Universities is advocated, not because the preliminaries at the Colleges and Halls have been unsatisfactory—for at some, and notably at the College of Surgeons of Ireland, where Greek is made compulsory, the published standard has been worthy of approval—but because the existence of so many Examining Boards is a source of weakness and uncertainty. The Universities are the mothers of Arts; and the preliminaries conducted by them, if placed on a proper basis, could be made the passports to admission to their medical degrees. It would be a great advantage to medical students if the University of London would modify its matriculation examination in the case of medical students. The natural philosophy and chemistry required might be reserved for the preliminary scientific examination. The future preliminary scientific examination for medical students generally might be entrusted with advantage to the Universities—in England especially to the University of London—and would include physics, physical geography, botany, inorganic chemistry, perhaps a selection from organic chemistry, and the classification of animals. The knowledge embraced in all these subjects can be acquired away from a hospital, at schools, colleges, universities, by private reading and tuition, coupled with dissections and examination of specimens in museums. All can be taught to boys if necessary, certainly to youths of sixteen or seventeen. All are subjects in which it is advisable to create an interest early in life. All "are admirable means of training, not only the reason and memory, but the powers of observation, and would prove excellent substitutes for the yards of repetition from the Eclogues, Georgics, and Æneid of Virgil, or from corrupted Greek choruses which no one understands, or for

the manufacture of villainous verses in a dead tongue. A man will be considered ere long imperfectly educated if he is unacquainted with the parts of a flower and the general outlines of its life, development, and growth—with the number, names, and properties of the chemical elements—with the composition of air and water—with the chief facts concerning heat, light, sound, and electricity, and with the structure of such common instruments as the air-pump, thermometer, barometer, and microscope." From physical science medicine derives both the appliances necessary for the medical man to ascertain the nature of diseases and the appliances which he uses for their cure. Instruments for conveying and intensifying sound, for reflecting and refracting light, for applying and abstracting heat, for generating and conducting electricity, drugs and medicaments from the mineral, vegetable, and animal kingdoms, are pressed into his service. Solids and fluids from the human body must be subjected to the scrutiny of the microscope and to chemical tests. For the scientific and right use of these appliances a knowledge of the elementary facts of the sciences laid under contribution cannot be too much to require, whilst, as Professor Huxley has observed, it may fairly be expected "that a medical man should have so much knowledge of botany and zoology as shall simply, for his own credit's sake and for the sake of his position in society, enable him to be on even terms with laymen, and to give safe opinions on matters" connected with the drugs he employs. All who have directed their attention to this subject are agreed that the necessary elementary knowledge of botany, zoology, physics, and chemistry, should be acquired and tested prior to the commencement of professional studies, and that if botany, zoology, physics, and chemistry, should need further cultivation at a medical school, the cultivation should be limited to those aspects of the subjects which have a direct application to the healing art. There is a general consensus of opinion on this matter, and, therefore, the only question really to be decided now is—How much botany, how much zoology, how much chemistry, and how much physics should be demanded? Opinions on this head have differed widely. Some have advocated the devotion of nearly a year to natural science; some have insisted on comparative anatomy as the basis of human anatomy, whilst others have regarded it as unnecessary; some would have despatched botany altogether as useless to the medical man, and derogatory to the medical profession, because it seems to

form a connecting link between medicine and herbalism. It would be a great mistake to institute an exalted standard in these subjects. The botanical knowledge should embrace morphology and vegetable physiology, and the recognition of tissues and some of the lower forms of life, such as bacteria and fungi under the microscope—the zoological knowledge should be strictly elementary—the principles of classification, and the distinctions between the sub-kingdoms and classes. The standard for physics and chemistry might be the same, or nearly the same, as that for the matriculation at the University of London. Those who aimed higher would present themselves at the scientific examinations for the medical degrees of the Universities. Putting all the scientific work together, it should be in quantity not greater than any student of average ability and application could acquire in about six or nine months, and it should be admissible for those who desired to do so to take up the scientific subjects at or immediately after the preliminary in general education. The alteration and improvement that would be effected by the combination of the scientific subjects, and by the institution of a preliminary scientific examination, would be so considerable that any attempt to make the test severe would be very ill-advised. On this subject Professor Huxley justly remarked in his address to the students of St. Mary's Hospital in 1866, from which a quotation has been already made:—"I am quite prepared to admit, and indeed I have always had a very strong conviction, that there is something absolutely preposterous in the volume and bulk to which some of our treatises on materia medica extend, and the enormous quantity of irrelevant matters with which their pages are crammed. I am not one of those persons who think that because you use spermaceti you are bound to know all about the classification of the *Cetacea*. I do not clearly see the connexion between those things, nor do I think that a man is bound to be acquainted with physical optics—and I am not talking wildly now—I have a particular case in my mind. I do not think a student should be dragged through the length and breadth of physical optics because there are particular substances used in medicine which affect the polarisation of light or exhibit the phenomena of fluorescence. That appears to be the Scylla we have to escape. The Charybdis we need to avoid, on the other hand, is the knowing nothing of these matters." During the time that the student was acquiring the requisite knowledge of the

scientific subjects, he might profitably reside with a medical man and learn the art of dispensing. He would gain an acquaintance with the routine of a surgery, pick up something about common diseases, and obtain a practical knowledge of drugs. To facilitate the studies of students in the natural sciences, three measures of improvement are needed. The first measure is the general introduction of the subjects of natural science into our public and private schools. The second measure is the general institution of museums in all considerable towns, and the improvement of those actually existing, and the third measure—and this is connected with the second—is the delivery of first-class lectures by professors of the sciences. The first measure will be carried into effect when head masters and parents have become convinced of the utility of the natural sciences as a means of training and expanding the mind and cultivating habits of observation, apart from any commercial or professional value; but the institution of a preliminary scientific for medical students would largely contribute to encourage instruction in these natural sciences at our large private and public schools. The second measure is one which should be undertaken by the Government of the country in connexion with the Science and Art Department of the Committee of Council on Education. The Parliamentary grant voted annually should be sufficient for the establishment, extension, and maintenance of educational museums, at least in every county or more important provincial town. No one has touched on this subject with more judgment and force than Sir Joseph Hooker. In his address to the British Association for the Advancement of Science on the 20th August, 1868, at Norwich, he observed—"Much has been written upon the use of museums. I believe that the subject is still far from being exhausted, for in the present state of education in this country these appear to me to afford the only means of efficiently teaching to schools the elements of zoology and physiology. I say in the present state of education, because I believe that it will be many years before we have the schoolmasters and mistresses trained to teach those subjects, and many more years before either provincial or private schools will be supplied with such illustrative specimens as are essential for the teachers' purposes. Confining myself to the consideration of provincial and local museums and their requirements for educational purposes, each should contain a series of specimens illustrating the principal and some of the

lesser divisions of the animal and vegetable kingdoms, and so disposed in well-lighted cases as that an inquiring observer might learn therefrom the principles upon which the animals and plants are classified, the relations of their organs to one another, and to some of their allies, the functions of those organs, and other matters relating to their habits and uses and place in the economy of nature." Dr. Hooker having pointed out the desirability of devoting space to pictorial illustrations and magnified views of smaller organs and their structure, of keeping the animals and plants of a province quite separate from the illustrations of general classification, of the curator of the museum giving elementary demonstrations to schools and others on payment of a small fee to be devoted to the support of the museum, proceeded thus:—"You boast of a superb collection of birds of prey; how much would the value of this be enhanced could there be seen near it such an illustration of the nature, habits, and affinities of the *raptores* as might well be obtained by an exhibition of the skeleton and dissected organs of one hawk and one owl, so ticketed that a schoolboy should see the why it is that hawks and owls are preeminent among birds for power of sight and of flight, for circling and for swooping, for rapacity, voracity, and tenacity of life—should see, in short, the affinities and special attributes of birds of prey." Dr. Hooker then entered into a criticism of the usual arrangements and situation of provincial museums, the two conditions of utility—convenience of situation and convenience of interior arrangements and lighting—being generally neglected. Too often the provincial museum was huddled away almost out of sight in a dark, crowded, and dirty thoroughfare, where it paid dear for ground rent, rates, and taxes, and could not be extended.

In a lecture on the educational uses of museums, published in 1853, the late Professor Edward Forbes made the following remarks :—"Unfortunately not a few country museums are little better than raree-shows. They contain an incongruous accumulation of things curious or supposed to be curious, heaped together in disorderly piles, or neatly spread out with ingenious disregard of their relations. The only label attached to nine specimens out of ten is 'Presented by Mr. So-and-So,' the object of the presentation having been either to cherish a glow of generous self-satisfaction in the bosom of the donor, or to get rid—under the semblance of doing a good action—of rubbish that had once been prized, but

latterly had stood in the way. Curiosities from the South Seas, relics, worthless in themselves, deriving their interest from association with persons and localities, a few badly-stuffed quadrupeds, rather more birds, a stuffed snake, a skinned alligator, part of an Egyptian mummy, Indian gods, a case or two of shells (the bivalves usually single and the univalves decorticated), a sea-urchin without its spines, a few common corals, the fruit of a double cocoa-nut, some mixed antiquities (partly local, partly Etruscan, partly Roman and Egyptian) and a case of minerals and miscellaneous fossils—such is the inventory and about the scientific order of their contents."

Reviewing the lecture in the *Chemical News* of April 21, 1860, Professor Church of the Agricultural College, Cirencester, observes:—

"A long-established and somewhat extensive museum in the English lake district affords a striking instance of the entire absence even of an attempt at systematic arrangement. It requires a more profound attention than most visitors can be called upon to give to discover the connexion between the following objects arranged in close proximity in Crosthwaite's Keswick Museum:—A cluster of fifty-five nuts from Graystoke Park—chain armour of the time of Stephen—a stuffed char—slippers of rattlesnake skin—the helmet of an Irish dragoon! Again, what abstruse relation is there between a Chinese churn, a monster bamboo, the prow of a Russian ship ornamented with mica, the skin of a conger eel? But this museum, it will be said, is a private one, and in a remote and rural district. Let us visit, then, one of the most celebrated homes of learning. What is the present state of the only Oxford museum that makes any attempt to illustrate the circle of the sciences? We cannot do better than quote the words of an Oxford guide-book—a guide-book which has the usual failings of such works, but which yet gives, in the extracts that follow, a fair idea of the collection known as the Ashmolean Museum. Let us premise that the specimens described are said to have been 'arranged with the greatest accuracy' by J. S. Duncan, D.C.L., according to the best recognised system. 'On entering the second room, opposite the door, is a large magnet, supporting a weight of 160 lbs. To the left of the door, and at the west end, are lofty glass-cases, containing a splendid collection of stuffed birds. Near the first window is an ancient chair of the time of Henry VIII.; in the window-place is the head and foot of the dodo, a bird now extinct; also a curious rattle, cut by a shepherd,

and an ancient gag. Near the second window-place is a model of the Druidical monument at Stonehenge. Against the wall, opposite the entrance, are cases of reptiles and fish, in spirits and otherwise. In the fifth window-place is a model in plaster of the field of Waterloo, representing the position of the contending armies when the Prussians approached ; also a Babylonish brick. To the right of the window is a portrait of Mary Davis, on whose head grew two horns, which she shed twice (one of them being preserved in a glass-case adjoining), and a variety of stuffed quadrupeds. Over these cases is a fine collection of the horns of ruminating animals.' The next curiosities are the following :—'Christ bearing his cross, executed with the feathers of the humming bird ; an ancient peg tankard (it having formerly been the custom for each person to drink from one peg to the other, and if he should drink more or less, to pay a fine) ; Burmese idols ; fragments collected by Belzoni in the Egyptian catacombs ; British and Roman relics from tumuli in Kent, Sussex, &c., and numerous other valuable curiosities.' The former curators of the Ashmolean Museum seem to have kept steadily in view the assertion of Plato:—'There can be no science of things perceived by the senses ?' No doubt the new University Museum, under its present able curator, will present, when the collections are arranged, a very different aspect."

The third measure which was specified as needful for the due cultivation of physical and biological studies was the delivery of first-class lectures by professors of the sciences. Courses on physics, on botany, on chemistry, and zoology are annually given at the medical schools. Physics having been an optional study has often been omitted. It cannot be said that these courses are either very satisfactory in themselves or properly attended by students. The number forming the audience at a course on zoology is frequently very small, and the professor, who may have taken the berth to get a footing as a teacher, is often ill paid, or not paid at all. How much more satisfactory it would be if these separate courses at the schools could be replaced by lectures at a central institution like the University of London or the College of Surgeons of England, delivered by the most eminent professors who could be found—men of the standing of Huxley and Tyndall. The theatres would be full, and the entrance fees would yield sufficient to pay expenses and to remunerate the professors. In the provinces the need for

professorial instruction would be met by the extension of University teaching.

One advantage of the improvement of the preliminary examination by the inclusion of Greek, and of the institution of a preliminary scientific examination, would be that the preliminary and scientific training and culture of medical men would be superior, instead of being, as they often are now, inferior to the training and culture of pharmaceutical chemists. The preliminary would also rank above that which sentinels the entrance gate of the legal profession. The second advantage would be that students desirous of obtaining the degrees of the Universities would find the curriculum for the minimum qualifications coincident with that for the University degrees, and would complete their scientific studies prior to registration and enrolment in the books of the medical schools. A third advantage would be that all the instruction imparted at medical schools would have reference to the human body in health and in disease. No longer would the chemical lecturer have to dwell on the elementary facts of chemistry, but would superintend a combined theoretical and practical course of chemistry applied to physiology and pathology, and to the analysis of food, water, air, and poisonous substances, in which principles and practice were made to form one harmonious whole. Comparative anatomy could be confined to the life-history of the parasites afflicting man and animals. Physics would scarcely need further development, for the best forms of instruments and batteries, and their applications in practice, would be incorporated in the special branches of medicine, surgery, or obstetrics in which their employment was needed. The student would commence his career at the medical school acquainted with the elementary facts of biology, the main laws of physics, inorganic chemistry, and the mode of using the microscope. Having brought him thus far, the author must briefly indicate the division of subjects and examinations which appear to him to be best fitted to secure for the student a thorough knowledge of the profession. Should the treatment of the subject be rather dogmatic, the fault must be attributed to the necessity for brevity at this stage of the Essay.

It would be very beneficial if the rule to which candidates for a degree in medicine in the University of France have to conform—viz., that they must be eighteen years of age, and produce duly-legalised certificates of birth and personal respectability before entering on medical studies—were extended to medical students

in the United Kingdom. Parents and guardians would be able to determine, by the time that their sons and wards had reached sixteen years of age, whether they should be destined for the medical profession or not; and if they were so destined at sixteen, there would be ample opportunity before eighteen for the acquirement of Greek and the elements of natural science, supposing that Greek had previously been neglected. To ease the demand for Greek it might be made optional with candidates to take it with the subjects of general education, or with the scientific subjects. A further benefit accruing from the age of eighteen would be that there would be greater stability of character and a stronger sense of responsibility than are often found in medical students who begin their professional studies at sixteen or seventeen. The age of twenty-two is quite early enough for the commencement of practice, although a diploma may now be conferred at twenty-one.

The arrangement of periods of study and of examinations which has commended itself most to the author's mind has been an arrangement similar in conception to that which has recently been altered in France, where the professional curriculum extended over four years, divided into four stages, each of a year's duration, and each terminated with an examination. It has always appeared to the author to be desirable that the student should have before him, especially in his first year, the prospect of an examination, to act as a stimulus to exertion. Many waste their first year either from sheer idleness and dissipation, or from a want of direction and aim, from the force of evil example, or from the consciousness of abilities sufficient to enable them to master their studies in their second year. It is immaterial to the argument whether the examination at the end of the first year should be conducted at the schools or at the central boards, but if at the former there should be some obvious connexion between the school and the central examinations beyond the mere credit or discredit gained in the estimation of school authorities. The studies during the first twelve months would consist of chemistry applied to the human body, histology, anatomy, materia medica (excluding therapeutics, but including the chief characteristics of the poisonous plants, preparations and doses), and practical pharmacy. The examination in these subjects should of course be tempered to the average condition of a student's knowledge at the end of a year of study. Each subject should be clearly defined. The authorities would do well to make the summer session the

commencement of the medical year. A raw student coming up in October is expected to begin dissecting long before he knows his bones or can remove the passing strangeness of anatomical studies. By beginning in the summer he could commence his anatomy by attending a course of lectures and demonstrations and examinations on the bones, and in three months there would be comfortable time for the lecturer to complete his course. When the winter came round the demonstrator might examine each student, either singly or in class, in osteology, for the purpose of determining his fitness to enter on the dissection of the body, for which a fair knowledge of the bones might be made indispensable. The lecturer on human anatomy would thus be saved all necessity for devoting any part of his time in the winter to the description of the bones, and would probably be able to run over in one course all the macroscopical anatomy of the body, whereas now by including the bones he is scarcely able to touch on more than one-half the descriptive anatomy of the other systems. In the three months' summer session the inexperienced pupil would also be taught the main features of the elementary tissues of the human body, and learn how to make sections and handle the requisite instruments. Those who had not already done so would go through a course of practical pharmacy and become acquainted with the external characters of drugs, whilst the chemical lecturer would experience no difficulty in bringing in, in the nine months, the whole of the medical chemistry needed by the student. In the second year the student would enter more deeply into anatomy and physiology, and he might be taught either some parts of morbid anatomy with the medical chemistry of morbid products and materia medica, if it should be thought that the addition of materia medica to the first year would overweight it, or, in lieu of materia medica, the physiological action of drugs and the effects of poisons. At the school also the anatomy and physiology should include external, or medical and surgical, anatomy and the use of instruments for examining the chest, heart, lungs, eye, and ear in health. By these means, when the student had passed his second examination, he would be thoroughly fitted to work in the wards of the hospital. To some extent in study, the subjects touching on man in health must overlap the subjects treating of man in disease, but in examination they should be kept as nearly as possible distinct. Here for a moment let us pause to set down the subjects of the first two years in categorical order.

*First Summer.*

Medical Botany—Poisonous Plants.
Pharmacopœia, Practical Pharmacy, and Materia Medica.
Osteology.
Histology, Practical.
Medical Chemistry.

*First Winter.*

Materia Medica.
Anatomy, with dissections.
Physiology, Elementary and Practical Histology.
Medical Chemistry.

*At end of First Year.*

Examination in Anatomy.
,, Physiology and Histology,
,, Materia Medica, Medical Botany, and Practical Pharmacy.
,, Medical Chemistry.

*Second Summer.*

External Anatomy—living model and dead subject.
Physiology—examination of organs in health, with stethoscope, sphygmograph, spirometer, cardiograph, ophthalmoscope, aural speculum, &c.
Medical Chemistry—examination of morbid fluids, calculi, &c.; tests for poisons, toxicology.
Physiological effects of drugs, poisonous or otherwise; alcohol, anæsthetics.
Restoration of life in cases of suffocation, drowning, &c.

*Second Winter.*

Advanced Anatomy, with dissections.
Advanced Physiology—histology of organs, &c.
Completion of Medical Chemistry.
Minor Surgery—bandaging, fractures, and dislocations, &c.

*At termination of Second Winter.*

Examination in Anatomy, including External Anatomy.
,, Physiology, including application of instruments.
,, Medical Chemistry.
,, Physiological effects of remedies and toxicology.

The second examination passed, the student would be fully equipped for medical and surgical practice in the wards, and would commence attending courses on Medicine, Surgery, Midwifery, and Diseases of Women.

In the third Summer he would take Midwifery, Vaccination, Morbid Anatomy, Course on Examination of Medical Patients, Surgical Injuries.

In the third Winter he would continue his study of Morbid Anatomy, and add Pathology, General Medicine, and Surgical Diseases, combining these with practical work in the wards or out-patient departments, and attendance on Midwifery cases.

At the end of the third year there would be an examination in Medicine, Surgery, Midwifery, and Morbid Anatomy ; the two former being to a considerable extent of a practical character. The candidate should also be expected to be able to write a prescription.

During the fourth Summer and Winter the student, if so minded, might reside with and be allowed to act as assistant to a practitioner, more especially in his Midwifery practice, with opportunities of attending courses of instruction in special diseases : Eye, Ear, Skin, Mind, Throat, and Diseases of Women and Children. Clinical Lectures on Medicine and Surgery, Therapeutics, Medical Jurisprudence, and operations on the dead body, would occupy the time of the student when not investigating and recording the histories of patients. Sanitary Science might also engage attention with advantage.

At the termination of the fourth year the examination would embrace Medicine, Surgery, Therapeutics, Medical Jurisprudence, Diseases of Women and Midwifery, and Special Diseases, Sanitary Science, and Operative Surgery, questions being still asked on Applied Anatomy.

It is not necessary to defend or to contend for every item of the foregoing programme. Alterations very probably would be required in details, but the main principles of construction appear to be sound, and such as would include in the curriculum much that is now shirked and shelved for sheer lack of time for its due cultivation. The foundations of the whole superstructure consist in the removal of the scientific subjects to the preliminary stage—in importing all neglected branches of professional knowledge—in dividing the curriculum into regular periods, each terminated by

an examination to lead the student on and prevent waste of time—in devotion of four entire years to strictly professional studies, and in concentrating all the attention of students and teachers in the medical schools upon the human body in health and in disease.

A subject which frequently attracts attention is compulsory attendance on hospital practice demanded of the medical student during his first eighteen months, before he has passed in anatomy and physiology. Very divergent views are held upon this subject. Some go so far as to say that they would not allow any student to enter the wards of a hospital until he has completed his anatomical and physiological studies for the primary examination. Others would still insist upon exacting attendance on hospital practice throughout the curriculum. Now the author has endeavoured to show that in England, at all events, the compulsory requirement of hospital practice in the first year is nugatory, for the first-year student finds that he has not time to attend in the wards, and that attendance, when he does go there, is unprofitable to him; and it is certain that the freshman occupies space to the inconvenience of both patients and the advanced student. The conclusion, therefore, at which the author arrives is, that hospital practice should not be demanded in the first year, but that the student should be left free to attend or not as he pleased. In the second year, however, he should be taught the application of anatomical facts and physiological facts to the living human body; he should map out the internal organs on the dead body, should trace the course of arteries on the living, and be drilled in external anatomy. He should attend a class in minor surgery, and learn the common forms of fracture and dislocation and the anatomical conditions favouring particular injuries. He should be able to use the stethoscope, ophthalmoscope, laryngoscope, aural speculum, and otoscope, for the purpose of recognising healthy structures, and such instruments as the cardiograph and sphygmograph. If he had these things to learn he would naturally be attracted to out-patient departments and to the wards; and in seeing them used and using them for the display of healthy structures would become interested in them and employ them in disease. The nature of the examinations should be such as inevitably to take men to the hospital in the second year. Some specific suggestions are needed in reference to the amendment of the defects in the existing regulations of the Corporations for hospital practice and midwifery which were pointed out in the part of this Essay

which dealt with the medical schools. In regard to midwifery, let every candidate for a diploma have attended a minimum of twenty cases. In reference to medical, surgical, and obstetric practice, the chief desideratum is to give the student experience without inflicting injury on patients. Loose observation and superficial observation of cases, bird's-eye views of disease in hurried journeys round the wards, can never give the student experience. Experience can only be the offspring of continued and accurate observation. To afford such experience it should be required that in each of the two latter years of the professional curriculum a certain number of cases should be assigned to each student, and of these he should be obliged either by central or school authority to keep accurate records from the time of admission into the wards to the time of their termination. The *post mortem* appearances personally seen should be added to the fatal cases. So far as the author knows, the only writer who has given much prominence to compulsory note-taking has been Mr. Isaac Ashe in his earlier Carmichael Prize Essay. The note-taking system should be extended to diseases of women and diseases of the mind and eye. The suggestion amounts to recommending that *every* student should hold office as ward clerk, keep a note-book, and be thoroughly trained under the superintendence of the resident medical officers, and clinical teachers. In this way a complete registration of disease might be obtained, and every student would hold an office, which at some hospitals only falls to the best men who are made better, while the men whom the reformer wishes to reach have no chance of development, but remain in a state of hopeless inferiority. Thus the text is illustrated: "To him that hath shall be given, and he shall have abundance." Thirdly, every student should act as dresser, both to in-patients and out-patients. Fourthly, every student should produce a certificate of having attended a course of operations on the dead subject, with personal performance of a certain number assigned by the teacher. The supply of anatomical subjects might not suffice for the personal performance of all the operations by each individual student. Lastly, an examination at the end of the third year would clench the advantages gained by the educational regulations above suggested. In the address to the Medical Teachers' Association already quoted, Sir William Jenner said "that he would test the candidate's clinical knowledge before submitting him to a written examination." "Thus," said he, "I would have the student made to

understand that he must know and must show to the examiners that he knows how to percuss, how to palpate the abdomen, how to examine by auscultation the heart and lungs, how to test for albumen or for sugar, how to examine a heart, a lung, a kidney after death; that he must show that he knows practically how to diagnose a largely hypertrophied heart, a solid lung, a pleura filled with fluid, a big liver, ascites, psoriasis, purpura, and such things." Now these simple things, with the commonest forms of surgical injury, fractures and dislocations, the most ordinary morbid conditions of the bodily organs, and the processes of natural labour, a student should surely know at the end of his third year; and at the end of that period he should be examined practically and theoretically in such things as these, reserving special diseases, and advanced pathology and therapeutics, for the examination at the end of the fourth year. The examination at the end of the third year would prevent students from wasting the year and cramming up for the final examination; would arrest the advance of incompetent men; would be a proof of fitness for the repose of greater responsibility in the fourth year, and would inaugurate that reign of observation and practical work without which no amount of theory, of lectures, and of book knowledge, can ever make men trustworthy practitioners of the healing art.

It is worth considering whether the student who passed the examination at the end of the third year might not be certificated as fit to act as assistant to a general practitioner; not perhaps being allowed to sign death certificates except in cases of real emergency, but acting chiefly under the direction of his superior in cases visited at regular intervals by the practitioner; attending midwifery cases not requiring instrumental interference; making *post mortem* examinations; and assisting in the home consultations. A well-regulated and guarded system of this kind would put an end to the evils of unqualified practice of assistants, afford a better supply of medical aid to the poor, and be of advantage to the young and not fully-fledged practitioner in yielding him experience in the management of patients without any risk of harm to them or pecuniary loss to himself. All the benefits, without the drawbacks of the old apprenticeship system, would accrue to principal and assistant.

In connexion with the subjects which it is desirable to include in the medical curriculum, with the order in which they should be

learned, and in which the student should be tested in them, comes the question—what are the certificates which the central authority should require the student to produce? There are some who advocate the entire abolition of restrictions from medical education, conceiving that the examinations should form a sufficient test of competency, which it would be needless to supplement by the cumbrous and futile aid of schedules. Whilst agreeing with the advocates of freedom so far as to object to any central authority prescribing, as is now done, the mode in which necessary subjects of study should be *taught* at Medical Schools, the author is opposed to the abolition of all restrictions and certificates; for these reasons:—1. The methods of study for qualifications in medicine differ fundamentally from the methods of study for degrees in arts and laws in being essentially objective, and requiring the education of all the senses and powers of observation under skilled supervision and direction. 2. The examinations for qualifications and degrees in medicine test satisfactorily only the theoretical knowledge of candidates, nor could they be made accurately to gauge the competency of candidates to recognise and treat disease in all its forms unless they were extended over a much longer period than is at present practicable. 3. The responsibilities of medical practitioners are onerous. The end for which qualifications are obtained is the daily practice of a profession on the proper exercise of which the health and lives of the community are dependent. It is therefore incumbent on all medical legislators to proceed with due caution in abolishing regulations which were set up as supplementary safeguards against the admission of incompetent persons. On the other hand it must be conceded that restrictions on the free pursuit of knowledge are injurious, and that it is not the business of central authorities either to keep education in established grooves or to favour one institution more than another. The attention of medical students has been directed too much to the acquisition of theoretical knowledge, and too little to the acquirement of practical skill, and this result has followed partly from the regulations of the Corporations demanding an excessive amount of bodily presence at courses of lectures, and partly from the defective character of the examinations. The reaction which has naturally set in has issued in a demand in some quarters for the abolition of all regulations, largely based on the easily demonstrable mischief and absurdity of a compulsion which has been both extravagant and wrongly directed.

It is not considered that evils quite as great, if of another kind, might spring out of the opposite extreme of immediate and entire emancipation. The principle which may be evolved from the opposing considerations here adduced is that compulsion ought not to be imposed unless it is necessary, and then only to the degree in which it can be proved to be so. As a corollary to this it follows that regulations for medical study should only extend so far as to require candidates for qualifications to practise to have done certain things, without doing which it would be generally granted that they could not learn properly the practice of their profession. In this category come dissection ; dressing surgical injuries and diseases; the application of the physical method of examination of cases in the wards and out-patient departments of hospitals, in infirmaries, in workhouses, in parish practice, and in private practice, by the use of the hands and organs of sense, aided by various instruments, such as the stethoscope, ophthalmoscope, laryngoscope, thermometer, sphygmograph, specula, spirometer, microscope, chemical tests, &c., &c.; the performance of *post mortem* examinations and operations; practical midwifery, &c. It must be evident that a prolonged examination alone could ascertain precisely the possession of the requisite skill in manipulation and the use of instruments, and in the diagnosis and treatment of diseases. Compulsory attendance on lectures has been excluded altogether from the foregoing category. Lectures are only one mode, and to many not the most agreeable or efficient mode, of instruction, and the question of attendance upon them may be safely left to the decision of the authorities at the individual Medical Schools. If the conclusions here drawn are sound it would be desirable for the central authorities to require candidates for qualifications to practise to produce evidence of—

(*a.*) A specified amount of Dissection.
(*b.*) „ „ Surgical Dressing.
(*c.*) „ „ Clinical Work—Medical, Surgical, and Obstetric—with systematic note-taking.
(*d.*) „ „ Practical Midwifery.
(*e.*) „ „ *Post mortem* Examinations and Operations.
(*f.*) „ „ Practical Chemistry applied to Medicine.

But whilst such certificates should be demanded, limitation of times and places of education should only be imposed after careful consideration and personal inspection. Every source for supplying the knowledge demanded, which afforded satisfactory guarantees of efficiency, should be recognised by the central authorities. The area of recognition might be widened, so as to include foreign schools of established repute and as many of the provincial medical institutions as possible, and, whenever practicable, certificates should be received from registered practitioners. There can be little doubt that students might acquire, if not the whole, at least a very considerable part of their practical knowledge by attendance in country hospitals, infirmaries, and workhouses as the pupils of medical men attached to these institutions, or with the aid of tutors having access to them and possessed of other means of instruction. Under such circumstances, to compel students who wished to live in the country to come up to the metropolitan Medical Schools, or to go to those of the large provincial towns, for the whole of their education, and thus add largely to its expense, and, perhaps, occasion further inconveniences, would be an undoubted hardship. There are, certainly, many large towns—such as Exeter, Leamington, and Bath, which, though not possessing a Medical *School* in the present acceptation of the term, must enjoy an abundance of wasted educational material, sufficient for the training of the pupils of registered practitioners. A relaxation of existing rules would not be followed by injury to the regular Medical Schools. Their prestige and advantages are such that they would continue to attract their wonted numbers of students, but the relaxation would benefit those whose means were slender, and who, spreading their education over a longer period than four years, could dispense with the elaborate machinery of an educational establishment.

Instead of the present schedules, the student presenting himself for examination at the end of a period should be required to produce a single certificate of good conduct and satisfactory study, with such details of his work (as, for instance, the number of parts of the body dissected) as might be deemed advisable by the central authorities. The definition of the subjects of study and examination was very well handled in the Report of the Medical Teachers' Association in 1868:—"We are of opinion that the controlling authority ought to define with very much more precision than is now used within what area of knowledge candidates for

minimum qualification are to be examined—to what extent in chemistry, to what exact extent in physiology, to what exact extent in forensic medicine, and so forth. We would insist that examinations should be thoroughly searching and strict within the area to which they purport to extend, and it is in order to secure this object that the examiner's requisition of knowledge should, in the first instance, be well defined. The present programme, unless it be understood with modifications which are not expressed in it, we think too pretentious for its object. We cannot hope (much as we might wish) that everyone entering upon practice in the United Kingdom shall have thoroughly mastered all the studies which are now nominally comprised in his curriculum—all the botany, physics, and chemistry, all the anatomy and physiology, all the forensic medicine and pharmacology, &c.; but if the requisition of the examining authority, in regard of each such subject matter, were defined in the manner we suggest, a really thorough knowledge within that more limited area might, we think, be made indispensable, and very advantageously substituted for smatterings of larger pretension."

Furthermore, the central authority should classify schools according to the branches of medical education which they were able to teach. Schools would fall naturally into two groups, complete and incomplete. From the complete schools certificates in every subject would be received, but from the incomplete schools certificates only in those subjects for which they were able to find material. The term school is here used in its widest sense to include any place where medical instruction in any branch of study could be imparted. Thus it is quite possible that several anatomical schools would spring up in the provinces in connexion with the larger infirmaries or county hospitals, where subjects now lost to the general stock might be obtainable. The members of the staff of a county hospital might combine to afford instruction in anatomy, histology, and minor and operative surgery of a tutorial character; and, inasmuch as many bodies now buried would thus become utilisable, the whole stock of educational material would be increased to the general advantage. Subjects for dissection and operations are not too plentiful, and, as it would probably be impracticable to have them sent far from the source of supply, and as waste is to be deprecated, they would have to be dissected and utilised where they could be procured.

Reception of certificates from incomplete schools would of itself

necessitate a step which is desirable on other grounds—viz., inspection of Medical Schools. Amalgamation of Corporations for the purpose of examination will greatly lessen the expense of visitation of examinations—and the Medical Council could undertake no more useful office than visitation, inspection, and certification of schools. The systematic performance of such work by the agency of the General Medical Council would stimulate a healthy rivalry between the Medical Schools in providing the most efficient educational appliances, and in instituting the most effective methods of instruction. Each school would have to set its house in order, for "the schoolmaster" would be "abroad." A typical school is one that possesses museums—scientific, anatomical, and pathological—duly catalogued and systematically arranged, with every object ticketed with short descriptions; roomy lecture theatres, with convenient desks for note-taking, slates for the lecturers' use, adequate space for diagrams, and special appliances for the use of the lime light; large and airy dissecting rooms, with guarded skeletons and anatomical plates; a plentiful supply of subjects; long class-rooms, with a north light fitted for practical work in histology, physiology, and chemistry—each student being provided with gas jet, tests and test tubes, a working microscope, instruments and reagents for preparing, mounting, and preserving specimens; a good library of reference, a commodious reading-room, a well-ordered and appointed refreshment department, convenient laboratories and offices, and proper accommodation for the officers and lecturers. At the hospital there should be rooms in connexion both with the medical and surgical and obstetric wards for examining morbid products, and a working room for students adjoining the *post mortem* theatre; one or two rooms for the delivery of clinical lectures and demonstrations, and a well-lighted and commodious operating theatre. A residential College, with a dining hall and rooms on the plan of a College at a University, would be a desirable addition to every medical school. Such Colleges would ultimately become integral parts of the University of London, developed on the lines of the older and historic seats of learning. The system of teaching at the schools must ultimately combine both the professorial and tutorial elements. The tendency is to make the student do more, and the teacher do less—to introduce regular examinations, and to diminish the number of formal lectures—to make every study as objective and practical as possible.

In former years, when good text-books were scarce, lectures

were of much greater value than they are now, and the student did well to take copious notes of the teacher's discourses. At the present day text-books are abundant and excellent, and must have the advantage over an oral exposition, however carefully prepared and admirably delivered. The chief value of lectures is that the student is obliged to hear a certain quantity of a subject every day, whether he likes it or not, whilst no authority can compel him to work at his text-book except by moral suasion, or arguments of a practical character addressed to his self-interest. A certain number of lectures will always be advisable, but it will probably be found that the necessary courses may be abbreviated with advantage and confined to the inculcation of principles, removing difficulties and obstacles from the student's path, and explaining discrepancies of statement, to introducing the student to a subject of study, and to giving him information not to be found in text-books within his reach. The time hitherto devoted to systematic lectures is likely in part to be occupied with class examinations on previously-announced topics—the students being required to come prepared with a given amount of book work and practical acquaintance with objects, and to be questioned thereon, with explanations, corrections, and comments by the teacher. This would be a truly educational process; it would be drawing the student out, or drawing out or eliciting the knowledge which he had partially acquired by his own exertions—making him the active agent instead of a passive and percolated receptacle of a transitory knowledge. The lecture system has much resembled the task of the daughters of Danae, whose destiny it was to fill pitchers which could hold no water. "Education," said Mr. Dennis De Berdt Hovell, in his address to the Hunterian Society in 1806, "is a subject much misinterpreted in word and abused in deed: it is intended literally to mean the drawing out of the faculties; but by being altered into merely pouring in and puffing up, it has too often resulted in choking and repressing some of the most valuable of them. Its highly necessary adjuvants—discipline and training—are not only too often, but too entirely neglected; and the want of this is much felt, because it operates negatively by preventing and neutralizing the good effects of teaching." Once or twice a session all the students should be examined orally and in writing by the Professors, and classed in accordance with their merits or demerits. Each student should be required to have his set of bones, his microscope and working instruments, and each

student should dissect each part of the body twice at least in his first two years; each should learn to prepare microscopic specimens and to perform qualitative analyses of morbid products; each should perform *post mortem* inspections and operations; each should have to keep records of cases in note-books or on sheets belonging to the hospital; each should be examined clinically in medicine and surgery. By the results of the examinations the authorities should be guided in bestowing responsible offices. Every student should feel that the authorities regarded him with an individual and paternal interest, not unduly prying into his proceedings or subjecting him to any martial discipline, but watching him with that friendly solicitude which would enable them to bring him back to the fold, if unhappily he should be tempted to stray, and afford him such help as he might need to overcome the obstacles to his progress.

The lines of educational improvement here advocated are of a nature strictly practical, and applicable to all schools by a simple mandate from the Medical Council and the Corporations. They do not in any way tend to subvert or destroy the independent organisation and constitution of the eleven metropolitan Medical Schools. But, when they had been carried into effect, the active minds of our leading thinkers, looking for a fresh field of improvement, would almost instinctively turn to the internal arrangements of our schools. The question would force itself to the front—whether the multiplicity of the Medical Schools in the metropolis did not serve to foster "a waste and weakness of teaching power and an under-payment of medical professors," and the question would probably be capable of receiving only an affirmative reply. By the visitations of schools and reports on schools trustworthy material for a sound judgment would be collected, and the conviction is strong that visitations of schools would lead to the conjunction of Medical Schools in the metropolis. The aim should be to combine the advantages of the French and German systems with our own. Two distinct things have to be provided for. The first is the prosecution of scientific research and discovery—the making of new knowledge—and the second is teaching students established knowledge. These two things are apt to be confounded together by those who advocate radical changes in our present arrangements. It must not be forgotten that it is not always the most learned man, the most original thinker and worker, the man most likely to leave his name on the roll of fame as an investigator and discoverer, who

is best fitted for teaching students common things. Very often the two gifts are entirely dissociated. Moreover, students in their embryonic state do not want to be filled with the latest speculations on abstruse, difficult, and disputed points, but to have a good foundation laid for medical and surgical practice, and to be placed in a position to pursue the higher knowledge afterwards. Hence the wisdom of advocating a recourse to the German system as a panacea for our own shortcomings may be doubted.

By all means let us concentrate our teaching forces as in Paris, but not, perhaps, to the like extent; by all means let us have a University system and a University Faculty in London, but let us not scatter Universities broadcast over the land, and lose the practical and clinical training which is the best feature in medical education. That which appears to be the need in London is a Medical Faculty connected with the University of London, comprising all the schools in the metropolis. Each school would send representatives to the Medical Council of the Faculty, and this body would regulate medical education at the schools. The Faculty would have its dean and officers, and would receive the fees for professional education in London, and these fees would be proportionately divided to the schools according to the scale of receipts fixed by the Council of the Faculty of Medicine. A considerable saving in each school would be effected by the abolition of certain separate courses which could be taught centrally, for which purpose two or three distinct buildings might be required in different quarters of the metropolis. If the establishment of a single school of medical science should be deemed undesirable or impracticable, probably three schools of medical science might be sufficient, at which physics, botany, chemistry (theoretical and practical), anatomy (theoretical and practical), physiology (theoretical and practical), materia medica, forensic medicine, psychological medicine, hygiene, and public health might be taught. The lectures would all be delivered at the most convenient time—say the morning, and the rest of the day would remain clear for dissection and hospital practice. All the hospitals would have to be utilised for clinical teaching, as each student would have to be put into the offices of dresser and clinical clerk. If systematic lectures on medicine and surgery, &c., were required, there is no reason why they should not be centrally delivered, the students subsequently dispersing to their respective hospitals for clinical work during the rest of

the day. Possibly the evening might be considered the best time for certain courses. The advantages of concentration would be that the lectures would be better worth listening to, the professors would be better paid, and the younger men (the demonstrators) would receive enough to make them devote their whole time to the duties of their office, and would not pay a divided allegiance to hospital and school work, with the chief eye towards the hospital and private practice. All the members of a hospital staff would concentrate their energies on clinical teaching, on medicine, surgery, and pathology, and would receive better remuneration than they do at present. No doubt there are immense difficulties in the way of combination of schools; but clearly this is one of the subjects of the future. At all events let the experiment be tried with regard to botany, comparative anatomy, physics, and inorganic chemistry, which would form the subjects for the preliminary scientific examination. The University of London would gradually become what it ought to become—a teaching as well as an examining body; and the State should endow certain professorships for the promotion of science and scientific medicine in this country.

Intimately connected with the progress of medical education are the subjects of hospital distribution and management, and the position and relations of Poor Law medical officers and sanitary medical officers. At the present time there is a dual system of hospitals—the voluntary and the State hospitals—and both are concerned in distributing medical relief gratuitously, the one to persons who are either just above the pauper class or well able to afford to pay for medical attendance, and the other to persons who have qualified as paupers; both sets of hospitals are practically free to the classes which they admit. In every parish in London the Poor Law authorities provide a dispensary for the distribution of medicines to the destitute sick, and to these are assigned convenient workable areas. The workhouse infirmaries and sick asylums are also distributed with a due regard to the wants of the population. But our large general and special hospitals, many of which were founded by medical men, have grown up in disorderly fashion, without any special eye to the needs of the district in which they happen to be situated. Most of the principal general hospitals are concentrated in a small area of the metropolis, leaving large sections of the modern Babylon unprovided for. In fact our hospital distribution much resembles

our old street architecture, which was allowed to regulate itself without regard to the public convenience. The consequence has been that modern necessities have compelled the destruction of houses and streets spread over large areas—a process which might not have been required if London had been built on some regular plan, or if Sir Christopher Wren's designs had been put into execution. The defects which have to be remedied, then, are—1. The irregular distribution of hospitals; 2. The abuse of hospitals by those able to pay; 3. The erection of hospitals at the will of private persons for private ends; 4. The abstraction of educational material from hospitals to which medical schools are attached by special hospitals which are out of the pale of the educational area; 5. The want of connexion between hospitals and dispensaries for educational and economical purposes; 6. The dual administration and dual action of the voluntary and State hospitals; and 7. The financial distress of many voluntary hospitals.

The measures which appear to be best calculated to remedy these evils are to unify our hospital system, and place it as a whole under State control—in fact, under the Ministry of Health previously advocated—not for the purpose of interfering with voluntary efforts and voluntary contributions, but for the purpose of inspection and direction, and for ensuring the fulfilment of the objects of hospital aid, without injury to the public. For the convenient distribution of hospitals, London—for London may be taken as illustrating what is advocated—should be mapped out into districts, and each district should have its group of hospitals and dispensaries for ordinary diseases (not infectious). There would be (1) the General Hospital, with its Special Departments or Special Hospitals for the eye, ear, skin, &c., in the centre of the district ; (2) the Poor Law Dispensary or Dispensaries ; and (3) the Provident Dispensary or Dispensaries for those able to pay. Into the General Hospital would be sent all curable pauper cases, and all cases which might be reasonably treated without payment. The out-patient department would have its special cases for teaching, the accidents, and a selection of medical cases for the purpose of instruction, such cases having been sent by the officers of the Provident or Poor Law Dispensaries, or admitted through a central bureau in the district. In the district specified there would be the State Officer of Health and the Poor Law Officer. Now these two functionaries should be united into one, and the amalgamated officer should be paid a sufficient

salary to render him quite independent of private practice. It might and would be necessary to subdivide districts, giving to each part or subdivision an amalgamated Health and Poor Law Officer. It would be the business of this officer, in concert with a lay officer at the central bureau of the district, to send cases to the proper institution, and to undertake house-to-house visitation; and in this he might be assisted by students who had passed the examination at the end of the third year of the curriculum. The State Medical Officer would work under a superior health officer in the manner suggested in the case of provincial medical officers of health. By combining the two offices of Poor Law and Sanitary Medical Officer, the duties of the amalgamated appointments would be too heavy to permit of private practice. The amalgamated salaries would be quite insufficient for the medical officer, who would have to be a man of superior attainments. It would be desirable that he should be possessed of a qualification in State Medicine, in addition to his double qualification in medicine and surgery. In France the *officiers de Santé* possess lower qualifications than the graduates of the University of France, but in England the policy should be to attract the best men to the service for the sake of the health of the country and diminution of expenditure on poor relief. As so large a proportion of poverty is due to sickness, surely the true remedy is to ensure for the sick poor the best advice, and this can only be achieved by giving to the destitute the advantage of the treatment afforded at general hospitals with a distinguished visiting staff, and to those who are capable of attending at the Poor Law Dispensary the advice of a medical officer of superior attainments. By thus elevating the service in qualification, in pay, in position, the civil medical services would prove attractive, and there would no longer be any complaint of an insufficient supply of men for the service of the poorer classes. The appointments would be for life, and there would be prospect of promotion to the higher sanitary appointments and to lucrative inspectorships. Rewards might also be given for distinguished service—as, for example, during invasions of cholera and epidemics, and a few decorations for medical men in civil life would not diminish their zeal in the noble cause of preventing and curing disease. The records of the medical profession do not display any lack of self-sacrifice on the part of its members, either in the ordinary routine of private practice or in public spheres of action. Not a war occurs that is

not illustrated by some deeds of heroic devotion to the wounded on the field of battle, at imminent risk of life, or some share in the charge or the defence on which the safety of a whole detachment may depend. Not a serious accident on a railway, not a colliery explosion, not an epidemic of cholera that does not find members of our profession gaining distinction by untiring zeal and sacrifice of self. And yet our profession has every year to complain of the ingratitude and want of common fairness of dealing of lay authorities—the public and the Government. Let a man be earnest and anxious to rectify abuses in the poor law medical service; let him unfold the defects of a poorhouse, and in a "month, a little month," he will learn that his services are no longer needed ; let a medical officer on board a ship endeavour to secure humane treatment for a sailor under arrest, and he will soon be glad to quit the ship or the service ; let a house-physician presume to try and reform a casualty-department, with its ludicrous caricature of medical relief, he will meet with a prompt dismissal. The strength of medical officers of lay authorities is to sit still, to do the work of the appointment noiselessly if not efficiently, and to wink at everything that does not appear worthy of approbation. Look over the record which has been set forth in earlier pages of the treatment of the medical officers in the public services. Alike in the army, in the navy, and in the Indian army there is the same story of Royal Warrants set aside by authorities in a Government office, Regal faith pledged and the pledge scattered to the winds in the War Office, at the Admiralty, or in the Government Houses at Calcutta, Madras, and Bombay—privileges conceded and then withdrawn or explained away, and again conceded when necessity compelled the restoration. What ingenuity has been displayed by the authorities in "keeping the word of promise to the ear and breaking it to the hope!" What official subtlety in doing away with the effect of some concession by counteracting provisions which destroy all the grace and neutralise some of the benefits nominally conferred! Witness the disappointment, expense, and vexation inflicted on successful candidates for the Indian service, when their expectations of receiving £45 a month in charge of a native regiment—expectations founded on an official document issued in London—prove delusive in India, because a special sense is there attached to the words "in charge," or witness the means adopted to nullify the relative rank of naval medical officers granted by the Warrant of 1858. "The

Naval Warrant," says a writer in *The British Medical Journal* for December 20th, 1873, "granted relative rank, so that at first an assistant-surgeon of six years' service ranked as a lieutenant (R.A.); a surgeon as commander ; a staff-surgeon as captain (junior of the rank) ; and a deputy-inspector-general as captain, according to the date of commission. It was, however, ingeniously managed that the naval titles were not mentioned, but the ranks granted with reference to the corresponding military titles. Accordingly, soon afterwards a Warrant made its appearance, raising the executive rank of the navy a step in relative military rank, and thus lowering the rank of the medical officer, the consequence being that now a surgeon (the present second-class staff-surgeon) ranks only with lieutenants ; and the first-class staff-surgeon, who previously ranked as captain, is now *junior of the commander's rank.* At the same time the other civil departments were all hoisted up a step, so that the medical officer is not much better off than at the beginning. The change in the relative rank of naval officers would never have been dreamt of had there not been a desire to checkmate the Medical Department. In the same way, in the army the Medical Warrants led to those for the commissariat and purveyor's department, to whom a rise of rank was granted, both actually and proportionately greater than to the Medical Department, although the latter can plead a long previous special training and the diploma of a separate and learned profession."

The long course of ill-treatment which has been meted out to the services has necessarily produced a sense of insecurity in the possession of privileges. It has for some time been felt that that which is conceded to-day may be withdrawn to-morrow. This feeling is at the root of much of the difficulty experienced in obtaining candidates for the army and navy. Other causes have combined. The treatment of medical officers has not been the same as the treatment of the executive officers, either as regards pay, allowances, pensions, scale of retirement, distinctions, furloughs, sick leave, retention of appointments during absence, relative rank or promotion. Military commanders have been allowed to interfere with the heads of departments, and everything has been done to emphasise the inferiority of the Medical Department to the Military. The medical profession is not grasping, and is readily contented if treated justly. All that it asks is that the faith of Royal Warrants shall be kept, that promises made and expectations

raised shall not be broken or dashed, that the full privileges and honours of relative rank shall be conceded, and that the army and navy appointments shall be made relatively equal to good positions in civil practice. Allowance must be made for separation from home and friends, for exposure to dangers and perils and bad climates, and inducements must be given for retirements throughout the career of the medical officer, not so great as to damage the service, but sufficient to tap the ranks laterally, and to produce a healthy circulation which will be favourable to the promotion and advancement of those who adhere to the service. Abolition of compulsory retirement from the army is destined to come, and the sooner it is changed for optional retirement, with corresponding inducements, the better for the Army Medical Department.

It is a satisfactory sign of the times that there are so many agencies at work endeavouring to secure justice for our professional brethren in the public services. We have witnessed deputations from the British Medical Association, memorials and memoranda from Medical Schools and from two Royal Colleges in Ireland on behalf of the surgeons in the Army Medical Department. The author has designedly mentioned the Colleges of Physicians and Surgeons last, because he thinks that, great as is the weight which their statements must have with Government, they would have more weight if they were backed by the voice of the Licentiates connected with them. How great might be the influence of the English College of Surgeons if some means were adopted by which the 16,000 members forming its grand constituency could give utterance through the dignitaries of the College to the wishes and views of the profession! How great might this influence be on many questions of general interest! And how advantageous to the Colleges might be the material support, the lively sympathy and enthusiasm of the rank and file! Nevertheless distrust of the body of the profession seems to have been long a guiding principle with the natural leaders of that profession. What horror—what groundless horror—of the representative principle and the harmless rustle of voting papers! What disturbing visions of heated elections, fussy demagogues, intriguing wire-pullers, and impending ruin of ancient and dignified Corporations and Councils. Phantoms all of a disturbed imagination. The representative principle is the only principle on which permanent organisation can be based. Let it be understood that, however long delayed,

representation of the profession in the General Medical Council, in the Medical Corporations, and in Parliament must come.

It is refreshing to find how dearly the Corporations love the profession whenever a measure of reform is brought in which threatens to sever the connexion between them and the profession, and it is disheartening to find how deep-rooted appears the dislike of the profession when any proposition is made to give the rank and file a voice in the conduct of affairs; and yet the position of the Corporations, if the Duke of Richmond's Bill passes in its present form, will not be logically, and may not be materially, secure. As has been previously shown, the certificates of the conjoint boards will be registrable without the diplomas of the Corporations, if the Corporations refuse to grant their diplomas! Why, then, it will be asked, trouble anyone to take the diplomas of the Colleges? Why not establish uniformity of qualification by doing away with old diplomas which represent bygone distinctions and differences in kind and degree of examination? Sir Dominic Corrigan has said that this provision is the death-knell of the Corporations. Certain it is that death-knell might have sounded in the ears of the profession—aye, and it did sound last year in the then provisions of the Duke of Richmond's Bill—it sounded in the Marquis of Ripon's Bill—without jarring on the ear of the profession or producing a single pang of regret. And why this apathy and silence on the part of the profession? Because the Colleges have no concern for the rank and file. There is no bond of connexion, no link of union between them. Where is even the boasted moral control which is said to be so necessary for the well-being of the profession? The general practitioner who passes through Lincoln's-inn Fields does not look up at the pillared portal of the College of Surgeons and feel pride at his nominal connexion with that time-honoured institution—he does not feel that he belongs to the College and the College to him. There is nothing in his breast akin to the proud declaration, *Civis Romanus sum.* He knows that there is a great gulf, fixed by the charter and ratified by the directors of the affairs of the College, between him and the favoured fellows, and between the fellows again and the Council; and if the Government were to sweep the institution away, he knows that the museum would remain, and that the library would probably remain, and perhaps be more accessible to him than they are at the present time. Now, this is not a healthy feeling—it is not a necessary

feeling—but the only way for the Colleges to escape the hidden dangers of legislation and to awaken a real interest in the profession, which shall be the best security for their development and maintenance, is by enfranchising their members and licentiates. The author trusts that in another part of this Essay he has said enough to establish the desirability of giving representation in the General Medical Council to the great body of the profession. The same or similar arguments may be used to prove the justice and the expediency of liberalising the constitution of the Colleges and making their Councils partly representative of members and licentiates as well as of fellows; and to such arguments must be added the considerations which have just been adduced, and those suggested in the following extract from Dr. W. J. Little's Hunterian Oration, delivered before the Hunterian Society in 1852:—"We are an unorganised profession—not that we have not Medical Corporations in excess; each, however, having established some claims to our respect by the higher scale of qualifications they have demanded of candidates for honours: in this respect acknowledging the necessity of keeping pace with the general demand of the present day for improved education. But, unfortunately, these Corporations are not governed by the thousands who belong to them; and I believe that one great cause of the absence of benevolent institutions worthy of a great and noble profession, springs from the want of sympathy and the want of habitually active concurrence in matters of moment to the profession between the represented and the unrepresented—the want of the habit of appealing in matters of common interest to the thousands of intelligent, industrious, and influential surgeons and physicians distributed over the whole kingdom. If we glance even at the numerous ancient and originally trading Corporations of this metropolis we find that, under different schemes of organisation, the representative system has prevailed—the wants, feelings, and wishes of all classes have influenced, and, ultimately, determined the conduct of the governing bodies; and amongst other admirable results of that principle (which is, in fact, the vital principle of responsibility) we find the endowment of educational establishments on a princely scale, and the establishment of benevolent funds for the accidental misfortune or decadence of their members. It can scarcely be doubted that with such an extended intercourse between all classes of the profession as would be created by a full representation in our Corporations, there would

result an increased influence of these bodies in the promotion of science, in the advancement of the intellectual and social claims and position of the profession, and (co-equal in importance) the active recognition of the duties of our body towards its less fortunate members." The question then remains, by what machinery should representation of the profession be effected? The author believes that the machinery both for the representation of the profession in the General Medical Council and its representation in the Colleges should be established by the Corporations. The closer the bond of connexion between the rank and file and the Corporations the better for both. The provisions of the Duke of Richmond's Bill, to which allusion has been made as involving future danger, might have been altered to the advantage of the Corporations if they had been prepared to grant diplomas to women who passed the conjoint examination. In that case there would have been no necessity for a new qualification and title—the Lic. M.L.M. But passing over this, the author would suggest that the Medical Corporations in each division of the United Kingdom might employ a conjoint machinery for the purpose of electing representatives of the profession. They might be allowed the services of the branch registrars, but all that is done should be done for the Corporations and through the Corporations. Whilst opposed, for the reasons previously stated, to the plan of providing representatives for the profession by giving the privilege of electing the ordinary representatives of the Corporations to their fellows, members, and licentiates, the author is in favour of giving representatives to the diplomates of the College of Physicians, the College of Surgeons, and the Apothecaries' Society of England in combination, to the three Colleges in Scotland united, and to the College of Physicians, the College of Surgeons, and the Apothecaries' Society in Ireland united. By this means plurality of voting would be avoided, and each general practitioner would have an equal voice in the election. Crown nomination of representatives of the profession in the Council is inexpedient, for it would fail to elicit the sympathies and interest of the profession at large. There are two other modes in which the election might be effected—either by posting voting papers to every member of the profession in each division of the kingdom, having their signatures attested and the voting papers returned; or by opening local polls in county towns or large provincial towns. The expense

of an election would only recur every five years, and, if the election were conducted by voting papers, would not exceed £200.

But there is another plan which may be thrown out for consideration, and it is this. A representative assembly or Convocation of diplomates connected with the Corporations in each division of the kingdom might be formed. The medical men in each county might be grouped together and requested to return a certain number, one to three representatives, to serve in Convocation for five years, and to Convocation might be given the right of electing representatives in the Council. Convocation might be summoned once a year to discuss questions of professional interest, and make representations to the Councils of the Colleges and the General Medical Council through their representatives. Convocation in each division of the kingdom might be allowed to elect two or three Fellows of the College of Surgeons as representatives to sit in the Council of the College of Surgeons, and two or three Licentiates or members of the College of Physicians to sit in the Council of the College of Physicians for a term of years. When there was no business for consideration the Meeting of Convocation might be passed over for the year. By this means a safe channel would be afforded for the expression of professional opinion.

The Colleges of Physicians and Surgeons might be united with advantage to return representatives to the House of Commons. Where is there an educational constituency numerically equal to that of the Royal College of Surgeons of England? The constituencies of the Colleges in Scotland and Ireland exceed that of the University of London. The presence of representatives of the profession in the House of Commons would be of immense advantage both to the public and the profession itself. In an age when State policy consists mainly in *sanitas sanitatum*, it is of the first importance that the medical profession should be duly and fully represented. Sir John Lubbock has suggested that the Royal Society should return a member to Parliament as the representative of science. How could science be better represented than through the medium of the Colleges of Physicians and Surgeons? The claim to representation in Parliament would be one of the benefits which the Colleges would derive from the enfranchisement of their licentiates and members. Another advantage would be the pecuniary and moral support which their diplomates could yield.

Political privileges involve expenditure, and such expenditure must be defrayed by those on whom the privileges are bestowed. Election of representatives to the General Medical Council, election of representatives to the College Councils, would be best provided for by the payment of a composition fee instead of an annual subscription by each member or licentiate on obtaining his diplomas. Five or six pounds might be added to the cost of the diplomas for this purpose. Present members of the profession should be admitted to the electoral register on payment of £1. These payments would create a handsome sum for division between the Corporations, and would remove any outstanding objections on the part of the opponents of representation. Stolid countenances at the Council of the College of Surgeons of England would relax on the receipt of £10,000 from the profession for the benefit of the noble institution which the members of Council are anxious to preserve. The bonds of moral control would become stronger than ever, and the idea of one or two general practitioners who had obtained the F.R.C.S. Eng. sitting in the Council Chamber would lose much of its present revolutionary aspect. The splendid museum reared on the foundation laid by the untiring genius of John Hunter, and the fine library, require to be maintained—the prestige of the College as a scientific centre and educational institution must not suffer eclipse.

There is a future, the darkness of which is as yet impenetrable, but which might be disastrous to some of the Corporations which many revere, and would deeply regret to see destroyed or dragging out a degenerate existence. Only by digging the foundations deeper and wider can security be obtained. Enlist the sympathies, the good-will, the hearty co-operation and support, the enthusiasm, the pride of the profession at large, and the Colleges of Physicians and Surgeons—the peculiar heritage of the profession—are safe from all external dangers. They would thus become bonds of union for a profession too often divided against itself, imparting unity and cohesion to the whole body now disparted, combining it for the advancement of professional interests, and the elevation of the profession in the estimation of the public. Instead of being urged from without to advance, they would become leaders, and all conflict of interest would cease. By slow and successive steps the profession has been fighting its way through every obstacle towards uniformity, equal

privileges and rights, representation and unity. Past history shows that the constitutions of the Colleges have gradually become more liberal. Councils are no longer entirely autocratic, but dependent on a body of fellows; councillors and examiners no longer hold office for life. Reciprocity of practice has been established; examinations are being rendered uniform; partial qualifications are doomed; education is becoming real and practical, and the standard of culture is being raised for the rank and file. The varied knowledge of general practitioners of the future will diminish the range of consultations and the necessity for frequent resort to physicians and surgeons. Time fights for the general practitioner, for every fresh requirement which Committees of Reference or the General Medical Council may demand, elevates him towards the level of those who hold the reins in the Medical Corporations. It cannot be, therefore, that the profession will remain content to sit in the cold shade of neglect, and be asked to take no part in the conduct of affairs, and to exercise no influence in its senate. Deny the moderate privileges which would give contentment and rest, instead of dissatisfaction and agitation, which would create a firm feeling of loyalty and attachment to institutions distinguished by the honoured names of the past worthies connected with them, and the march of the profession onward and upward is for a time impeded—but the wave of progress, gathering strength from the body of water in motion behind it, will sweep away the feeble barriers which timid minds have raised to stay its course. Happy will it be if, in the time of triumph, the landmarks of the profession escape destruction. Would that a spirit of wise concession would yield, ungrudgingly and with grace, privileges which, like the quality of mercy, dropping as the gentle rain from heaven upon the place beneath, would bless both him that gives and him that takes.

Much work remains to be accomplished in consolidating the gains of the past and securing unity in the future—unity in educational regulations, unity in examination, unity in qualification, unity in councils, unity in privileges, unity in power, unity in the professional commonwealth, and unity in design and action. Towards this unity, consciously and unconsciously, the profession is striving. Undaunted by obstacles, undismayed by difficulties, not discouraged by hope deferred, it will continue to struggle till it reach the goal.

NIL ACTUM REPUTANS SI QUID SUPERESSET AGENDUM.

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